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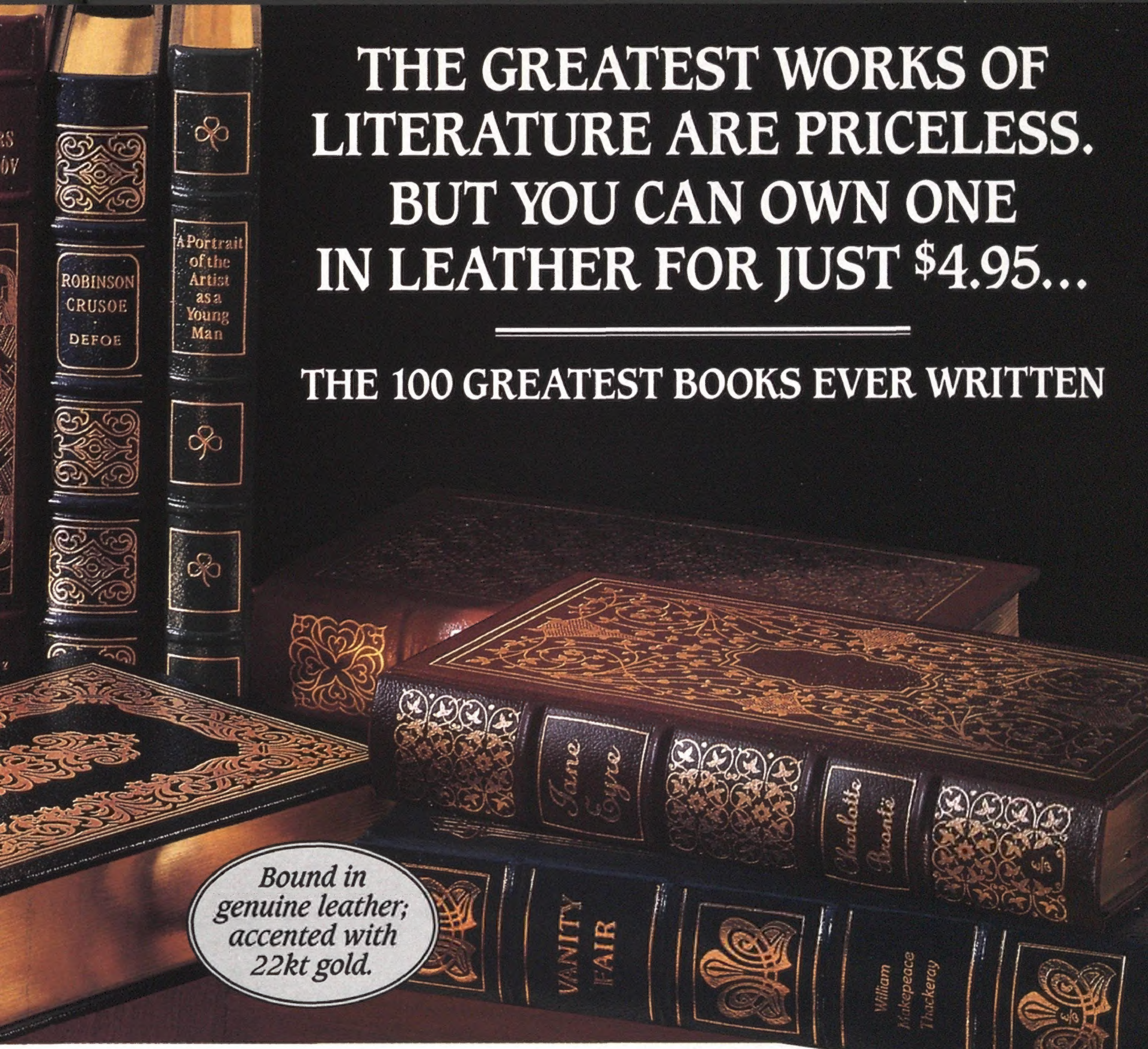

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January 1994

Smithsonian

Volume 24, Number 10

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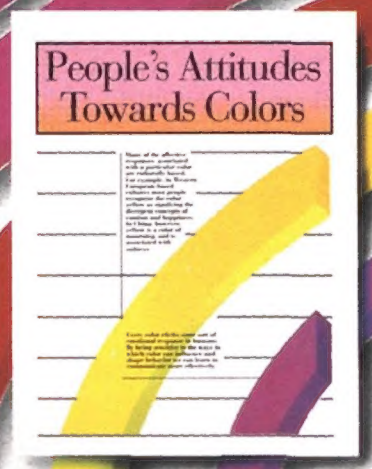

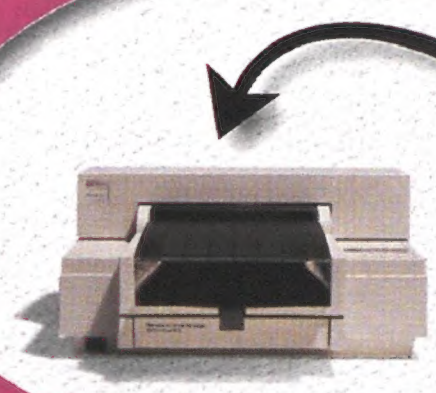

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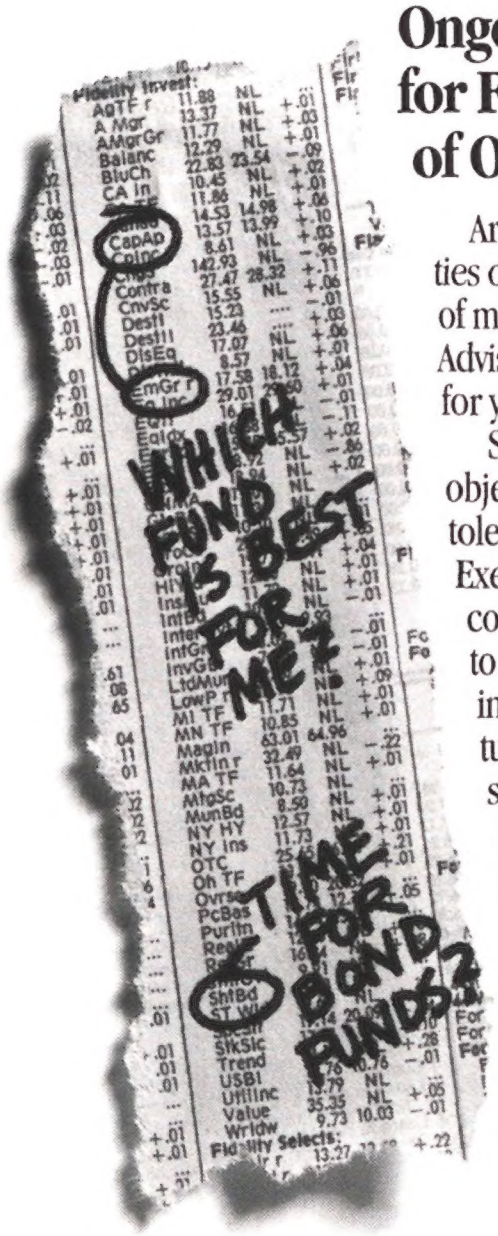

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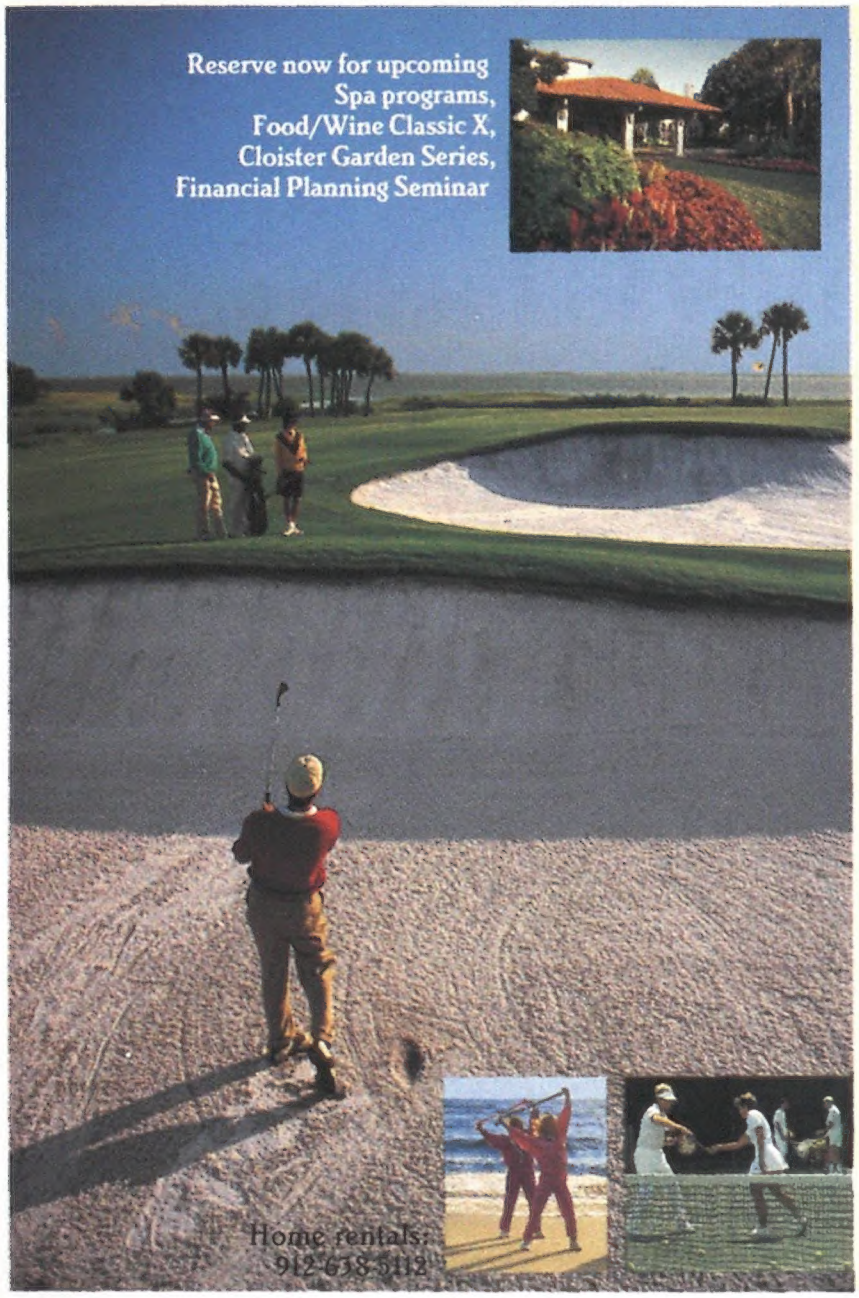

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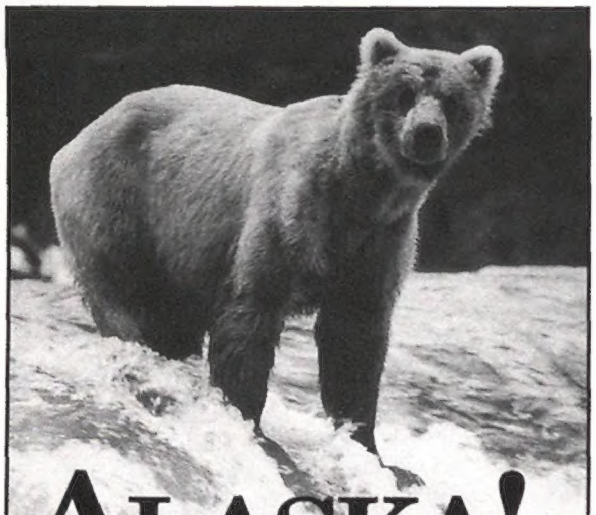

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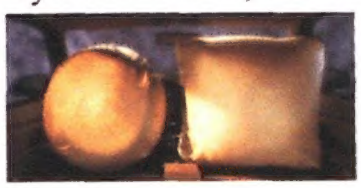

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Secretary Adams' comments

Smithsonian horizons

We need to balance environmental and economic concerns in our plans for any future natural disasters

Environmental risks come in many shapes and sizes. Taking a sufficiently long view, the timing and magnitude of floods or great storms that place lives and property at risk are generally distributed under what is called a normal, bell-shaped curve. In a statistical sense, then, there is a certain regularity. But the number falling within the span of anyone's direct experience is seldom large enough to sustain urgent public or private action except as an immediate sequel to a disaster.

Facing uncertainty, as individuals we mostly underinsure ourselves and try to ignore it. It falls largely to government to install protective barriers and early warning systems or, when all else fails, to provide disaster relief. But for the most part, we individually and collectively allow ourselves to be lulled by the moderate events that are much more numerous than serious ones. It is almost always a source of surprise and dismay when the rare, great disturbances eventually strike again with truly destructive force.

Perhaps it is only natural–an example, even if sometimes painful, of economic rationality–that our provisions for risks decline in proportion to their declining probability. But most disasters have a substantial human component that we should not neglect. Whether consciously and intentionally or not, through our own disturbing activities we add at least to the complexity, and sometimes also the magnitude, of the dangers we must then face.

The Mississippi and Missouri River floods last summer are a classic case in point. Flood control levees, products of many years of joint efforts by the Army Corps of Engineers and local farmers, flanked most of the dangerous stretches of the rivers and their major tributaries. Periodically raised and strengthened over many seasons of threatened high water that mostly remained within moderate limits of variation, these levees have maximized the productivity of fertile bottomlands. With the region hit by the heaviest rainfall on record since 1895, as it was last summer, the levees raised the crests of record floods still higher in some areas by reducing the cross section of flow.

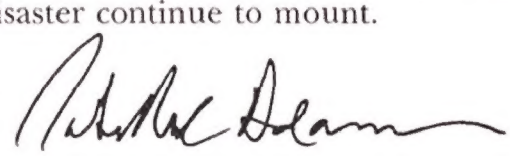
Some argue that the problem originates with excessive encroachments on natural riverine floodplains for agricultural uses and even settlement. Are public expenditures for further improvements in the levee system justified, or will they merely raise the crests of the next major floods yet again? This was a year, to be sure, when the havoc wasn't confined to floodplains; much of Iowa turned for a time into a lake. But clearly there would be no inducement to go to the trouble and expense of building levees at all, or of repairing the devastation when they are breached, if the floodplains were allowed to revert to their natural state.

The difficulty is that most of the time this is very productive farmland. Can the argument for forgoing human use be justified just because this land sometimes floods? Perhaps so, but that would seem to require a careful balancing of both economic and environmental gains and losses. And insofar as floodplain settlement and agriculture do continue, there is a compelling counterargument that levees slow the onset of disaster and thus may help to save many human lives.

If we are to assess future flooding probabilities and weigh them accurately against potential farm income, we need reliable hydrological models that have painstakingly incorporated data on past floods as well as this one. Only with such models would it be possible to take a comprehensive, critical look at the entire system of levees. It is, after all, less a planned system than a historical accretion originating in many local initiatives. "Instead of flood control," as Gilbert F. White, head of the Natural Hazards Research Center at the University of Colorado, observes, "we should be concerned with the wise use of floodplains, which may involve flood control." But in the meantime, what should be done about farmers who, after this year's losses, want the new levee breaches repaired as quickly as possible in order not to risk loss of next year's harvest as well? Any responsible, democratic government will feel the tension between these conflicting demands.

With suitable variations, the essentials of this problem apply with equal force to the devastation left in south Florida by Hurricane Andrew. Save that the benefits of repair are for recreational rather than agricultural use, the problem applies even more closely to residential destruction as a result of beachfront erosion during Atlantic storms.

Can we find the legal means and political will to apply a comprehensive "wise use" approach in cases like these, or is our system permanently grounded in the checks and balances of individual interests and local constituencies? How much of the burden of avoiding or repairing future disasters should fall upon public authorities, and how much on those who, almost always with the knowledge and even encouragement of other public authorities, may have played a small part in precipitating them? There are no right or easy answers. But in the meantime, the social costs of each new natural disaster continue to mount.



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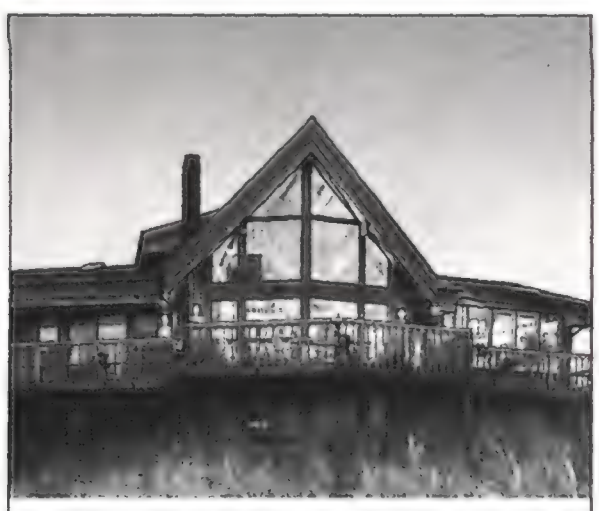

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Letters to the Editor

The tango

Dear Sir: Your November tango article conjured up my trip to China last May. In Tian, hardly a sophisticated world-class city, our tour participants arose early to check out activities in the park.

Imagine our delight and surprise to find a paved area with a loudspeaker playing tango music. There were 40 to 50 couples dancing the tango. Our tour guides said this had been going on in China for several months.

Men were mostly in business suits and ties, their partners in brightly colored, gold-buttoned blazers with black mini-skirts or stirrup pants, hair tied back. Older women, still in Mao suits, were line-dancing the tango at a far corner. Everyone was happy as could be at 7 A.M.

A few die-hards in a nearby park were doing t'ai chi and other classic forms of early-morning warm-up.

Virginia H. Laddey
Irvine, California

Dear Sir: Chiori Santiago didn't mention the tango's influence on serious music, especially in the 1920s and '30s.

One delightful example occurs in Kurt Weill's short opera *The Tsar Has His Photograph Taken*, which premiered in 1928 but was given its first American professional performance by the Santa Fe Opera only last summer. The Tsar, vacationing (more or less incognito) in Paris, becomes the intended victim of an assassination plot by revolutionaries. However, rather than shoot him, the temptress whom they have employed revs up a gramophone with a seductive tango. They dance, and eventually the Tsar escapes unscathed but heartbroken, and that, too, is very true to the spirit of the tango.

Paula Lozar
Santa Fe

Dear Sir: The reference to Carlos Gardel's "golden tenor" contradicts the testimony of Eduardo Bonessi, who wrote, "He had a brilliant baritone register. . ." or Edmundo Rivera's simple description: "Baritone."

Most Americans know little of Gardel, but it was here in the United States that he cemented his international fame. He made his most important films, all in Spanish, at the Paramount studios in Astoria, Long Island.

Jim Ruddle
Rye, New York

Gardel began his singing career as a tenor; as he got older his voice became baritone. Ed.

Kangaroos

Dear Sir: John Haviland, who has made a study of Guugu Yimidhirr, the language of the people who met Captain Cook, found that the word *ganjurru* means "large black kangaroo," rather than "I don't know."

Geoffrey Kimball
Department of Anthropology, Tulane
New Orleans

Tarawa

Dear Sir: You didn't mention the heroic fighting of the shot-up elements of the Third Battalion Second Marine Division on Red Beach One. No reinforcements were sent to us, but on D plus one, the marines still alive made a determined drive across the island and secured Green Beach. The Japanese withdrew to the east. The high bunkers and armaments along the west beach, which were cleared during the drive, provided excellent protection and permitted low-silhouette rubber boats to come in from the west.

This drive was made by marines who had seen most of their friends killed during the previous day. Carrying major wounds or minor but irritating ones from hand grenades that had greeted us at the sea wall, our battalion still insisted on fighting. In my opinion, it was the shot-up elements of the Third Batallion Second Marines that won that battle by securing Green Beach and establishing a

thin line completely across the island, thereby allowing the Sixth Marines to land on a secure beach. Once an organized battalion was ashore there was no contest.
Phillip "F." Enger
Arvada, Colorado

Dear Sir: I was there. I went ashore D plus three. After the mop-up of the island, Naval Intelligence wanted measured drawings of all the Japanese defenses: headquarters blockhouse, power plant, gun emplacements, bunkers, the whole bit. As I am an architect in civilian life, I made those drawings from the crew's field notes.

Intelligence pulled whatever prints they needed; the original drawings were returned to me. I still have them.
Larry E. Klatt
Denver

Dear Sir: Mr. Kernan writes: "It is the fall of 1943. . .in the Pacific, four months after the U.S. victory at Midway. . . ."

The Battle of Midway was in June 1942, 18 months prior to the beginning of the Tarawa campaign.
Robert W. Kostelka
Monroe, Louisiana

Dear Sir: My ship, the flag transport *Zeilin*, furnished the only beach landing party. I was Assistant Beachmaster. Our 40-man party lived at the end of the long pier from the assault's second morning until our return to our ship on the fifth day. Lack of a landing site and the defenders' imminent firepower made a first-day landing impossible.

When we finally set up shop on the pier, our medical doctor and ten corpsmen immediately began processing the wounded, sending them back to the ships for surgery or whatever. Working around the clock for 36 hours, we also expedited the flow of men and matériel to the front.

I think the Japanese made at least one fatal tactical error. Had they come up and charged the first night or second morning, they would have succeeded in totally wiping out our marines.
Robert E. Green, Cdr. USNR (ret.)
Sherman Oaks, California

'Free Within Ourselves'

Dear Sir: I spent part of several years doing primary research on Bill Traylor. According to census and baptismal records and documented witnesses, Bill Traylor was born April 1, 1855. His three living grandchildren say that he started drawing before 1939, and signed and dated negatives show him drawing and painting as late as 1948; he died in October 1949.
Miriam Fowler, Executive Director
Madison-Morgan Cultural Center
Madison, Georgia

Knute Rockne

Dear Sir: Ken Chowder claimed that "In 1926 Carnegie Tech had ended Notre Dame's long winning streak at home. . . ."

Wrong. That 19-0 defeat in 1926 was on Carnegie's home field.

It was in 1928 that Carnegie beat Notre Dame 27-7, at Notre Dame's home, its first loss there since 1905.
Pat Harmon
College Football Hall of Fame
Kings Island, Ohio

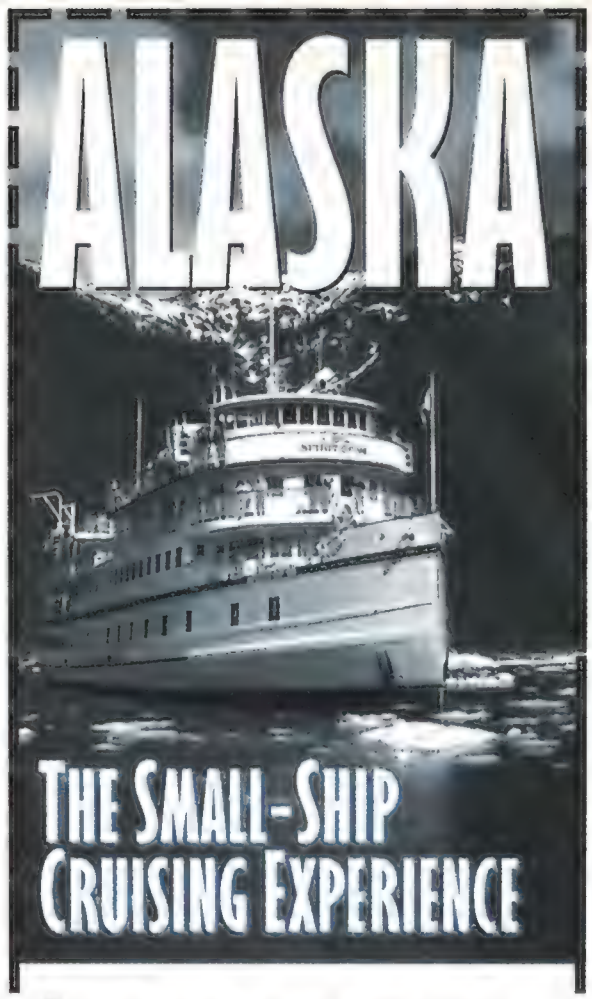
Harley-Davidson

Dear Sir: I rode Harley Hogs for 25 years in the Long Beach Police Department and can refute your statement that 100 mph was tops for a stock Hog.

On patrol one day in 1941, a hopped-up hot rod went through a stop sign about 50 mph. I took chase, red lights and siren on. The driver leaned out of the car and waved for me to come on after him. I said to myself "I'll get you if I have to chase you till I run out of gas." I had sport bars and no windshield, so I flattened out like a jockey, with only my eyes showing over the headlight. I got 102 mph out of old 828, my Model 61 Hog.

After a wild chase the hot rodder pulled up on the wrong side of the street in front of a hospital. He jumped out and said, "My dad is being operated on and needs blood." With gun drawn I said, "I've heard every excuse but that one. Let's find out if you're lying." It was true. We both had our blood tested, and thank heaven his matched. I told him goodbye and good luck, no ticket.
Sgt. Roderick G. Welsh (ret.)
San Diego

Dear Sir: It was William Davidson, not Arthur, who was the grandfather of "Willie G." I know because William was also my grandfather.
Carol Schrager
Los Gatos, California



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Phenomena, comment and notes

Studies of creativity and the human brain show us to be fundamentally different from animals and computers

Many years ago, when I was young and foolhardy, I had a dream that someday I would play linebacker for the Chicago Bears. Undeterred by a decidedly undistinguished high school football career, I decided to try out for the team at the University of Illinois. I walked onto the field one day, and there, practicing with the rest of the seniors, was Ray Nitschke, the most extraordinary football player I had ever seen in my life. He would go on to define the position of middle linebacker with the legendary Green Bay Packer teams of the 1960s and enter the Hall of Fame, but that afternoon he was just going through his paces on the field. I watched him play for a few minutes, then turned around and walked away. I knew that I could practice for a million years and never be able to do what I had seen him do.

Years later, equipped with a new PhD and a new set of dreams, I was having lunch with my colleagues at MIT. There I met Steven Weinberg, who, although I didn't know it at the time, was engaged in work that would revolutionize our understanding of the structure of the Universe and, incidentally, win him a Nobel Prize. A few minutes into the conversation, that familiar feeling came back. I realized that no matter how hard I worked at being a physicist, I could never dream of competing with someone like him. (Fortunately, there are a lot more career openings for physicists than there are for linebackers.)

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Both of these experiences went beyond mundane emotions like envy. In fact, I remember them as uplifting, mountaintop events–events that left me inspired about the heights to which human beings can climb. I also came away with a profound understanding of a simple fact: some people, like my linebacker and laureate, are able to perform at levels far above those where the rest of us operate.

These memories came back to me recently when I attended a conference on the subject of human intellect and creativity at the Chicago Academy of Sciences. Everyone realizes that some individuals in the history of the human race have done extraordinary things. We think of them as intellectual giants–the Newtons, the Michelangelos, the Beethovens. Scholars call the contributions of people like these "cultural creativity." If we're lucky, we get one episode of cultural creativity per generation–an episode that suddenly gives the entire human race a new way of looking at the world we live in.

But there is a more mundane, more human aspect of creativity that most of us experience at one time or another–something scholars call "individual creativity." This is the "Aha!" moment that comes when you suddenly hit on a way to get through to your teenager or figure out what's been making your car run so poorly for the past six months. This sort of creativity does not change the course of history, but it is the source of enormous satisfaction for individual human beings. It may also be (and I'll return to this point in a moment) one of the activities we can point to that are uniquely human, the sorts of things that set us off from other animals.

Of course, there must be a relation between creativity and what we refer to loosely as "intelligence," and this gets us into the problem of saying what intelligence is. Most scholars agree that there is more to it than what is measured on IQ tests, but there the agreement seems to stop. Because of my experience with the linebacker and the laureate, I've always been receptive to the idea that there are probably many kinds of intelligence, only some of which can be measured on standardized tests. It seems to me that the kind of ability you see in a dancer or an athlete is one of these, the creative activity of the scientist, another.

In addition, there is a kind of intelligence that can be described as empathic. If you've ever met a politician of national stature, you probably know what I mean. These are men and women who can enter a room, immediately make a kind of personal contact with everyone there, maintain that contact throughout long meetings and discussions, and leave behind a group of people who think that they have in some sense "known" the individual. These people have a heightened ability to deal with interpersonal relationships, a sixth sense about what other people are thinking and feeling.

So my own experience in life has caused me to think of intelligence as a kind of three-dimensional thing, with an abstract dimension (the scientist), a physical dimension (the athlete) and an empathic dimension (the politician). I was delighted, then, to find that more serious and well thought out versions of this conclusion are becoming popular.

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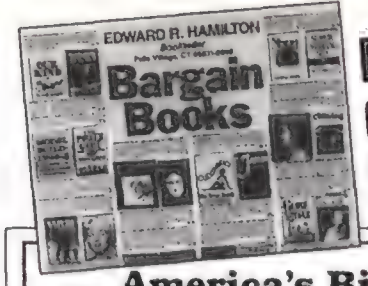

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Howard Gardner of Harvard, for example, has argued that there are, in fact, seven different intelligences that you can see operating in varying degrees in everyone (for your information, the seven are linguistic, musical, spatial, logical-mathematical, bodily-kinesthetic, intrapersonal and interpersonal).

Although there may be all sorts of different kinds of intelligences, the way these intelligences function in real human beings may not be as different as you might think. My own experience has been that scientists and artists, for example, think in remarkably similar ways. Most people express great surprise when they are told that theoretical physicists think in pictures, yet in my entire career as a physicist I have met only one or two people who actually think in equations. (They were the people whom I found it hardest to understand and with whom I least enjoyed discussing physics.)

But the more I listened to the speakers talking about creativity and intelligence, the more my thoughts drifted to another conference I'd attended several months previously–a conference at George Mason University devoted to a study of the functioning of the human brain. Although the subjects may seem far apart, I realized that both groups of scholars were really wrestling with the same fundamental question: What is it that makes human beings different? What can we point to and say, "This is uniquely human"?

The people who talked about creativity and intelligence were taking what I think of as a top-down view of human intellectual activity. In this approach, you look at a large-scale function like creativity and try to make some statements about how it works by observing real human beings in action. The brain conference, on the other hand, was populated largely by people who took a bottom-up approach. In this scheme, you begin with the basic building blocks of the brain (neurons or collections of neurons) and try to see how they fit together to give you the large-scale activities that you actually see. Both the top-downers and the bottom-uppers recognized that what distinguishes human beings from other animals has to do with the functioning of the cerebral cortex: the "gray matter" of the brain. To be human, they say, is to have a particular kind of mental capacity, and the different camps differ only in the way they choose to examine that capacity.

Once you start thinking this way, however, once you say that the seat of humanity is in the brain, you run smack into another problem. If the brain is just a collection of cells and electric currents, how are human beings different from machines like computers? To understand the uniqueness of human beings, you have to understand not only how we differ from other animals but also how we differ from the machines that our creativity and inventiveness have produced. And here modern research on the brain is starting to become relevant because it is showing us that the brain simply doesn't function the way a computer does.

It appears that, to take one example, there is no such thing as "memory" in the sense of a single ability. The phenomenon that we experience as memory is, in fact, made up of a large number of different kinds of memory, each handled by a different collection of specialized cells. In the same way, it appears that there are parts of the brain that are very good at seeing corners and lines and particular patterns in the visual field, but no general processor that operates on vision. Computers, which involve linear or, at best, parallel arrays of transistors, simply don't function this way. This, I think, is the reason that the much ballyhooed field of artificial intelligence has not yet produced much in the way of things that most of us would recognize as intelligent machines.

I suspect that, in the end, it will be phenomena like creativity, which almost certainly uses many parts of the brain, that will differentiate us from our machines. I will even go out on a limb and predict that no one now living will see a machine that we would recognize as being creative–no machine that will make the Hall of Fame or win the Nobel Prize.

Or even, for that matter, play linebacker for the Chicago Bears.

James Trefil

The author teaches physics at George Mason University. His latest book is *A Scientist In the City* (Doubleday).

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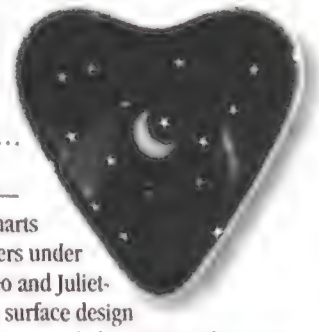

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Smithsonian highlights

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Begin your visit at the Smithsonian Information Center's Associates' Reception Desk–open, 9 A.M. to 4 P.M. daily–in the "Castle." The Court dining room, located in the National Museum of Natural History, offers buffet service daily, 11 A.M. to 3 P.M. The Castle's Commons dining room will be closed for about two months starting January 3.

Museum hours

Most Smithsonian museums are open from 10 A.M. to 5:30 P.M. daily, except December 25. Hours at the National Zoo are 9 A.M. to 4:30 P.M. daily for buildings, and 8 A.M. to 6 P.M. for grounds.

Musical Weekend

The 22d Smithsonian Musical Weekend will be held April 29-May 1. Highlights include a performance by the Dance Theatre of Harlem at the Kennedy Center; a concert by the Smithsonian Chamber Players; dinners at the Freer Gallery and new National Postal Museum; tea and music at the Japanese Embassy; and breakfast at the Zoo. For details write: Musical Weekend, Box 11302, Washington, D.C. 20008-0502.

Special January exhibits, events

National Portrait Gallery

VanDerZee Photographer (1886-1893) (through February 13) Retrospective looks at the 80-year career of the distinguished Harlem photographer. See *Highlights continued*, page 20.

Recent Acquisitions (January 14-May 1) Portraits of notable Americans selected from recently acquired works.

National Museum of American Art

Earthly Constellation: Photographs by Linda Connor (through March 20) Images by the contemporary American photographer document spiritual landscapes.

Jasper Johns: Love and Death (through February 20) Special installation features a select group of works.

Renwick Gallery

American Crafts: The Nation's Collection (runs indefinitely) Selection of 19th- and 20th-century works from the permanent collection showcases pieces by prominent artists in a variety of craft media.

National Air and Space Museum

Monitoring Amazonia from Space (through March 30) How modern satellite technology is being used to monitor the development and degradation of Amazonia's complex ecosystem.

Where Next, Columbus? Permanent exhibition examines the scientific, technological, economic, ethical and political issues involved in future space travel.

Mock-up of gear for future Mars mission is in NASM's "Where Next, Columbus?"

Beavers (6:45 P.M., Friday-Sunday) Imax film set in the Canadian Rockies follows a family of beavers as they grow, play, and transform the land around them.

National Museum of American History
Edison After Forty (January 11-September 6) Exhibit looks at the work done at Edison's West Orange, New Jersey, laboratory.
Seeing is Believing: Photos of the Civil Rights Movement (January 18-September 11) Exhibit presents comprehensive view of the movement through photographs taken on behalf of such organizations as the NAACP and the Southern Christian Leadership Conference.

National Postal Museum
The Smithsonian's newest museum, located next to Union Station on Capitol Hill, presents exhibitions tracking the history of the nation's mail service–from the Colonial Post and the Pony Express, to the art of letter writing and the beauty and lore of stamps.

National Museum of Natural History
Chiefly Feasts: The Enduring Kwakiutl Potlatch (through March 6) Exhibit showcases the art and culture of one of the most unusual and important Northwest Coast Native American ceremonies.
O. Orkin Insect Zoo The newly renovated insect zoo features various insect habitats, an unusual look at insects in your home, and an African termite mound.

National Zoological Park
Amazonia Permanent installation re-creates a microcosm of the world's largest rain forest and river habitat and explores its wonders.

Hirshhorn Museum & Sculpture Garden
Directions–Glenn Ligon: To Disembark (through February 20) Recent mixed-media works by the African-American conceptual artist focus on issues of identity and the legacy of slavery.
The Collection Reviewed: Alexander Calder (through March 27) Mobiles and other sculptures by the popular artist.

National Museum of African Art
Asen: Iron Altars from Ouidah, Republic of Benin (through April 24) Exhibition explores beliefs, symbols, that spread from Africa to the New World and back.
Royal Benin Art in the Collection of the National Museum of African Art (runs indefinitely) Works from the 15th to the 19th century, including royal commemorative heads, figures and plaques.

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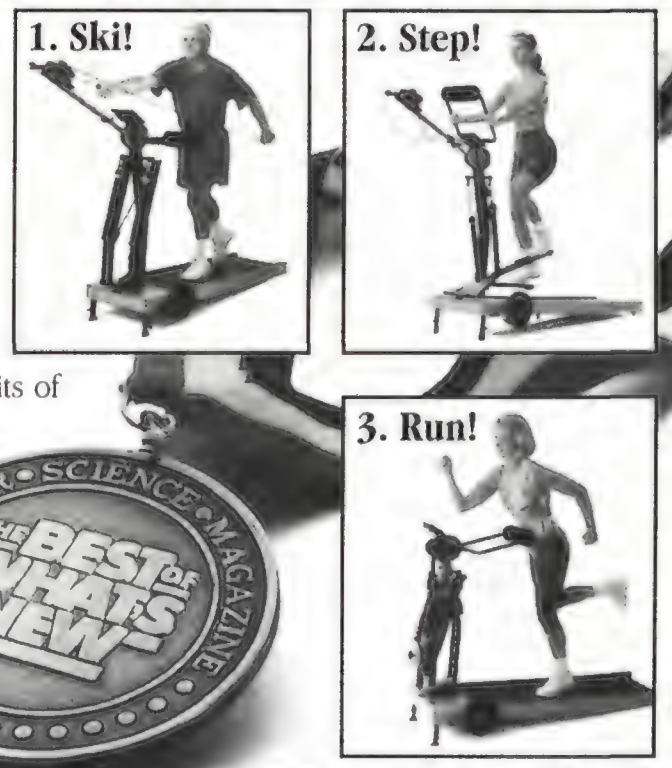

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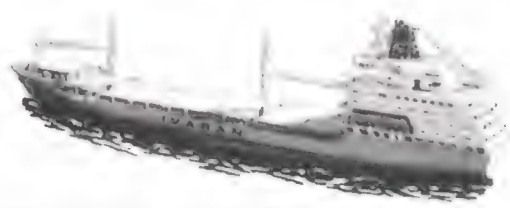

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Plate by Hazama Koichi is in Sackler's "Contemporary Porcelain from Japan."

Freer Gallery of Art

America Meets Asia Newly renovated and reinstalled galleries feature Asian and 19th- and early 20th-century American art, including an important collection of works by James McNeill Whistler.

Luxury Arts of the Silk Route Empires (runs indefinitely) Adjoining galleries present objects from the Freer and Sackler collections tracing the cultural interchange along the Silk Route.

Arthur M. Sackler Gallery

Contemporary Porcelain from Japan (through September 5) Innovative and varied porcelain vessels–30 works by 30 masters–were recently donated to the Sackler by the Japan Foundation.

The Divine Word of Islam (through February 6) Seventeen works, from the 14th through 18th century, include bound manuscripts of the Koran.

Anacostia Museum

Before Freedom Came: African-American Life in the Antebellum South (through March 1) SITES exhibit features personal stories about African-Americans who escaped slavery–tools, musical instruments and objects of spiritual significance.

Arts and Industries Building Experimental Gallery

Dress Codes: Urban Folk Fashion (through January 30) Exhibition looks at the ways in which textiles are carriers and communicators of individual and collective values in contemporary U.S. society.

Discovery Theater

Apollo: To the Moon (January 4-22: Tuesday-Friday 10 A.M. and 11:30 A.M.; Saturday, 11:30 A.M. and 1 P.M.) Live theater for young audiences.

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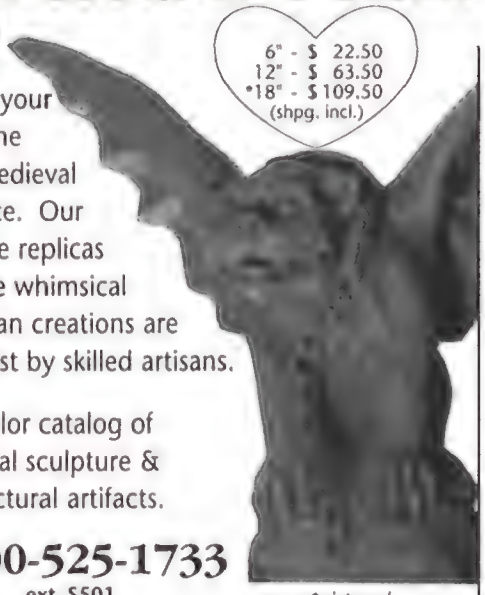

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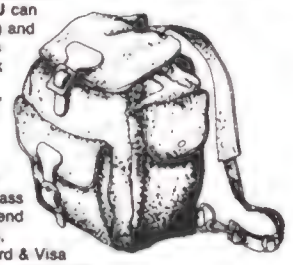

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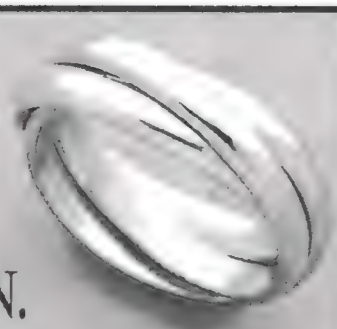

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International Gallery,
S. Dillon Ripley Center
The Power of Maps (through January 23) Exhibition of more than 300 historical and contemporary maps explores their significance as instruments of communication, persuasion and authority.

Cooper-Hewitt Museum (New York)
Fancy Fronts: Men's Waistcoats from the Eighteenth Century (through February 13) Display examines European men's vests as articles of clothing, as documents of social, political and economic status, and as works of creativity and technical skill.

Exhibition catalogs

Catalogs available currently include:
VanDerZee Photographer, 1886-1983 ($39.95)
Astonishment and Power: Kongo Minkisi/ The Art of Renée Stout ($34.95 paper)
Chiefly Feasts: The Enduring Kwakiutl Potlatch ($60/$29.95 paper)
We Were Always Free ($19.95 paper)
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To order, send check or money order to Smithsonian Museum Shops, 8308 Cinder Bed Road, Newington, Virginia 22122. Include 15 percent of purchase to cover postage, handling (minimum, $1.75).

Office of Elementary and Secondary Education

The Office of Elementary and Secondary Education (OESE) offers a variety of programs, publications and services for teachers of prekindergarten through grade 12 nationwide. The recently published *Happy 50th, Smokey Bear!* (see page 59), a learning kit about forests and fire safety for grades K-3, is now available free of charge. To order, write: OESE, Smithsonian Institution, Arts & Industries Building, Room 1163, MRC 402, Washington, D.C. 20560.

Smithsonian on the air

Jazz Smithsonian Radio Smithsonian's new series premieres on public radio nationwide with the Smithsonian Jazz Masterworks Orchestra performing music of the 1920s, '30s, '40s and '50s. Hosted by singer Lena Horne, programs this month feature jazz greats such as Duke Ellington, Artie Shaw. Check local listings.

Resident Associate Program

To become a Resident Associate, or for fee and ticket information, call (202) 357-3030. January events include:
Peter Arnett: Live from the Battlefield (January 18; 6 P.M.) Lecture by the award-winning journalist.
David Hilliard and the Story of the Black Panther Party (January 20; 7 P.M.) The former chief of staff for the Black Panthers reads from his new autobiography.

Smithsonian Institution Traveling Exhibition Service

SITES organizes and circulates exhibitions to cities throughout the United States and abroad. To sponsor a show in your community, write SITES, Smithsonian, Washington, D.C. 20560. Here are some January exhibits:
• Indianapolis, Indiana (January 8-February 20) *Songs of My People*, Children's Museum.
• Tempe, Arizona (January 7-February 26) *Two Eagles/Dos Aguilas: A Natural History of the Mexico-U.S. Borderlands*, Arizona State University.

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Highlights continued

An elegant take on life in Harlem

Works spanning the 80-year career of photographer James VanDerZee are on view at the National Portrait Gallery

In 1916 James VanDerZee opened his first photography studio on West 135th Street in New York City's Harlem. It was the eve of the Harlem Renaissance–the decade-long (1919-29) flowering of art and culture that established Harlem as the most vigorous African-American community in the nation. For some 40 years, VanDerZee captured the life and spirit of that burgeoning community, producing thousands of portraits, not only of notables but of countless other, now unknown citizens–parents and children, brides and grooms, soldiers, athletes, church groups, women's clubs.

"VanDerZee, Photographer (1886-1983)," on view at NPG through February 13, features an artful selection of 124 vintage and modern prints. They date from 1906, two years before the artist moved to Harlem, to 1982, the year before he died, at age 97. "These images provide an important record of Harlem life," says guest curator Deborah Willis Braithwaite, "but VanDerZee's photographs transcend simple documents, for they also reflect his subjects' keen sense of the importance of their culture."

Carefully staging his compositions to spotlight his subjects' pride and self-assurance, VanDerZee posed his clients against an array of elaborate painted backdrops, surrounding them with elegant props and accessories. His flair for composition and inventive use of photomontage enabled him to create his own particular reality, his own kind of theater, his own vision. "It's a hard job to get the camera to see it like you see it," he once remarked.

"James VanDerZee brought a special insight into the lives and feelings of his subjects," maintains NPG director Alan Fern. "With special eyes, he recorded a time, a place and a culture that we can recapture vividly through the persistence of his vision."

Diane M. Bolz

All: © Donna Mussenden VanDerZee

Father's Footsteps (detail), 1935

The Gift of Love, c.1930

Identical Twins, 1924

My Corsage, 1931

Bill Cosby, 1980

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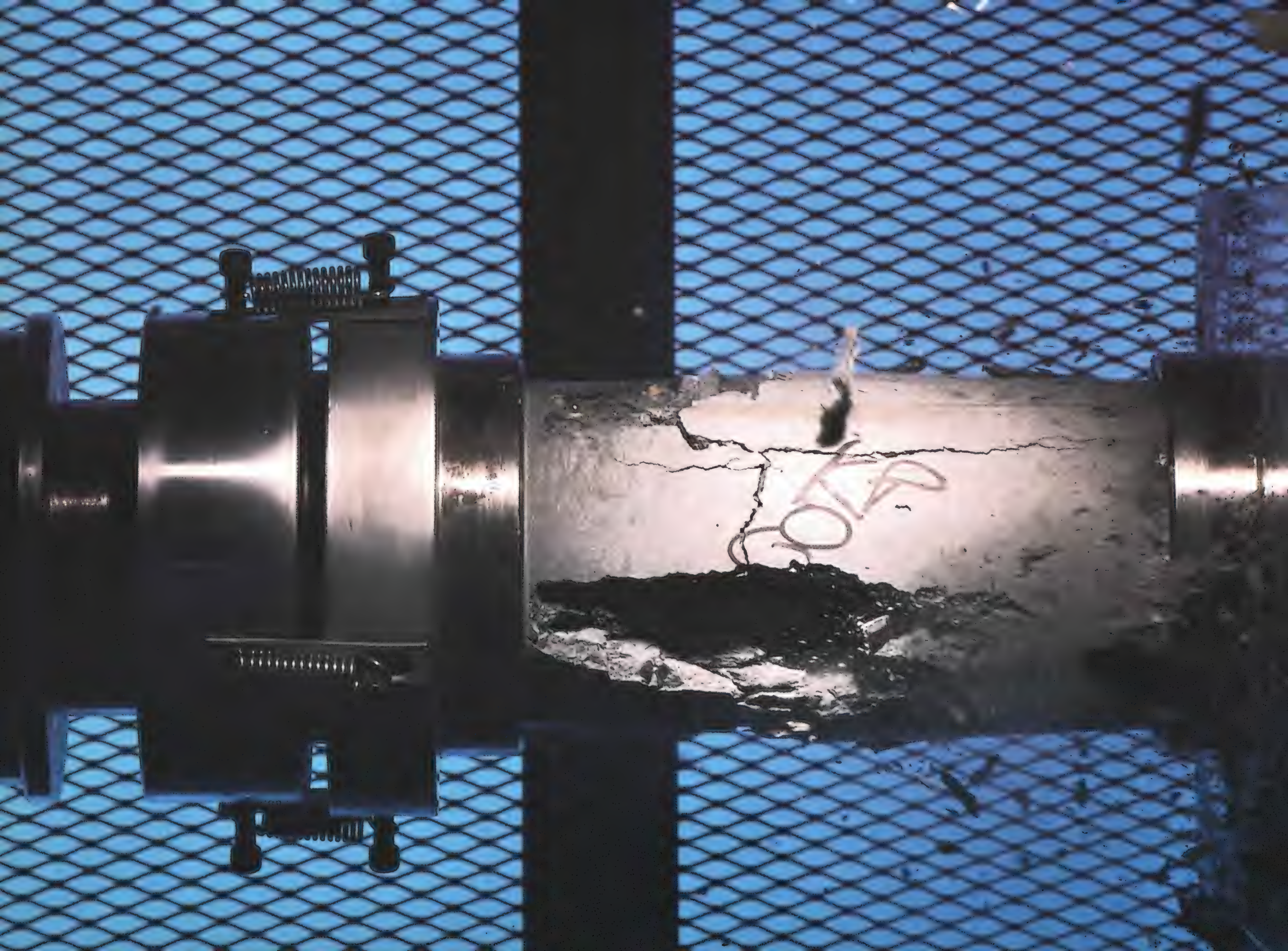
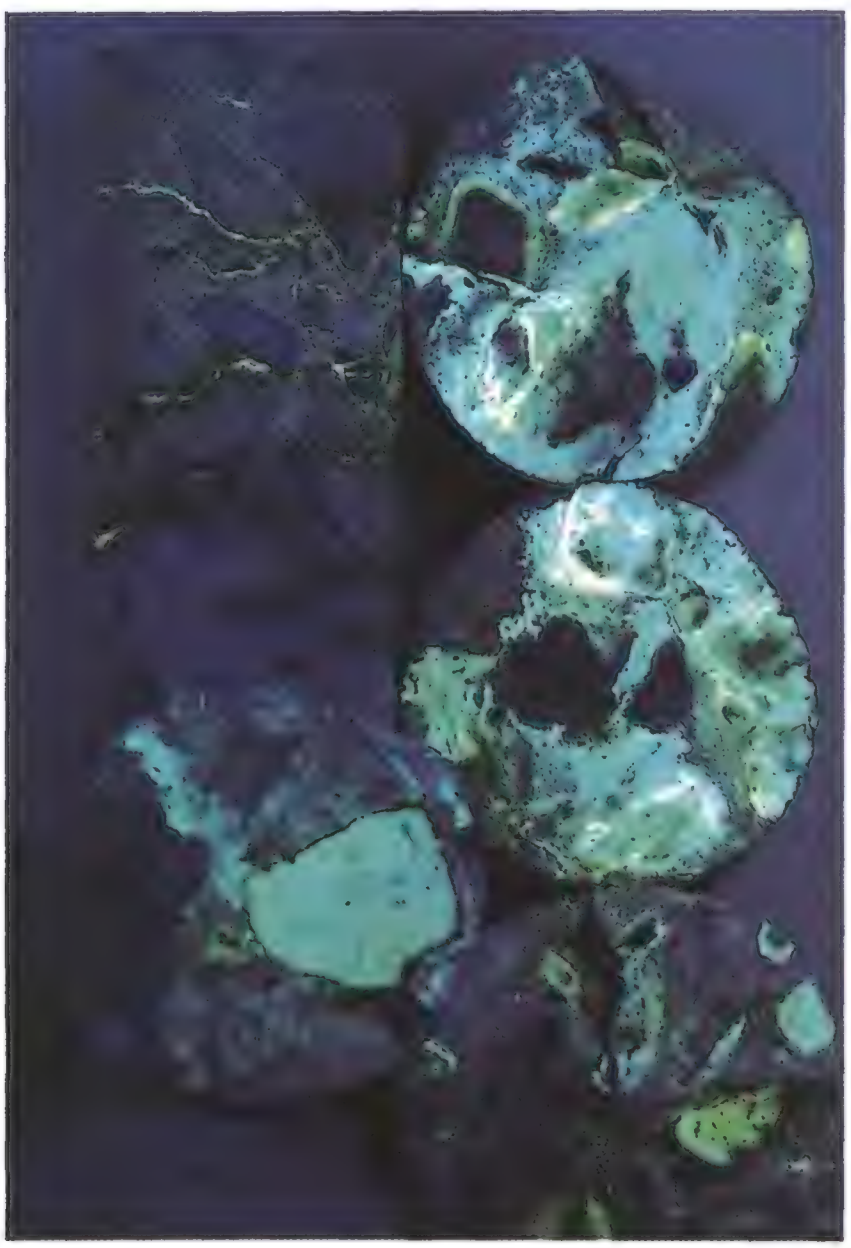


By Richard Wolkomir

Inside the lab and out, concrete is more than it's cracked up to be

As scientists investigate the secrets of that all-purpose gray matter, they're creating the construction materials of the future



At Cornell lab, concrete samples undergo daunting trials: hydraulic vise (left) crushes column until it gives; specimens (above) are sprayed with fluorescent compound to help identify signs of deterioration.

Join me as I barrel through New York State's Adirondack Mountains in a red rent-a-car, checking out the concrete. Right now I'm heading into Speculator on Route 8, and the steel-belted radials are humming on concrete pavement.

Not bad–no chunks gouged out by ice. I'll give it a B+.

Here comes Hinckley Reservoir Dam. I should have a bumper sticker: "This car brakes for concrete!" I don't see any cracks. So all those motorboats buzzing around the reservoir shouldn't suddenly whoosh down the valley on a wall of foam.

My inspector-of-concrete duties are self-assigned but rigorous. I note everything along my route made from portland cement. So in a Rome parking lot, where I'm taking a break, I note that a streetlamp's steel pole is rooted in a concrete mound. There's a concrete sidewalk (looking moth-eaten). And that car showroom rests on a concrete foundation. Leaving Rome on Route 365, more concrete pavement. The expansion joints have widened, making the wheels go *bump-thump*. I'll grade it C, tops.

I'm on my way to Cornell University to talk to concrete researchers. I want to see the lab where they torture chunks of bridges and buildings and squeeze cylinders of concrete until they burst. For one thing, our infrastructure–a lot of it concrete–is crumbling. Federal studies say so, as does my checkbook: I just replaced my car's shocks because of potholes. And last year three of our town's bridges were closed due to dilapidation.

Sooner or later, the United States will have to invest in millions of tons of new concrete, which raises a taxpayer-type question. This stuff has gone into buildings and roads since Vespasian built the Colosseum, but now it's up against murderous traffic and acid rain. So will we be buying the same old concrete that's now decomposing? I've heard about new superconcretes, and weird experimental concretes that bend like plastic, and new machines that probe concrete's innards for "disease," so we'll know when a bridge is in a falling-down mood. I'm getting concretaphobic.

Photographs by Kay Chernush

Cornell's Richard White analyzes fissures on sample column subjected to simulated earthquake tremors.

Ken Hover's ball-and-toothpick model depicts cement crystals, interlocked after water has been added.

Early the next morning, I report to the George Winter Laboratory of Structural Engineering at Cornell. I feel like a Lilliputian transported to Brobdingnag: this lab is four stories high. Machines as tall as my house are squeezing concrete chunks ripped from skyscrapers or giving them a shake, the reinforcing bars sticking out like broken-off bones.

This is an industrial-strength lab. Jackhammers rat-a-tat-tat. Hydraulic pumps hum. And I'm standing on a prefabricated concrete slab the size of a railroad flatcar's bed. It rests on two huge pedestals, like a picnic table for Gargantua. The slab is a prefabricated section of pavement designed for the Tappan Zee Bridge, which spans the Hudson River above New York City, and I'm feeling queasy because it is undulating up and down under my feet. "In the end, around March 1994, we'll ramp this specimen up to total destruction," says my guide, Prof. Richard White.

He is cheerful about such things because reducing concrete to powder and reinforcing bars to rubble is what he does. The idea is to see if this new type of factory-made pavement can stand up to the whomping it would get on the bridge from heavily loaded trucks. White is whomping it ahead of time with a hydraulic arm that endlessly presses down (with the force of 26 tons) and then eases up–the civil engineering equivalent of the Heimlich maneuver. Every time it presses down, the hydraulic arm emits a plaintive gasp, the slab bends under my feet, and I feel queasier.

"It keeps going like this night and day–it's now 30 percent of the way to 10,000,000 cycles," says White, a gray-haired civil engineer who speaks of tensile forces and pounds per square inch as easily as some men talk about batting averages. When the hydraulic arm finishes its work, he says, the slab will have taken a beating equivalent to decades on the bridge. The painstaking testing is necessary because this is a new kind of bridge deck, made of what might be called "concrete lite." This stuff weighs only 115 pounds per cubic foot, versus normal concrete's 145 pounds per cubic foot.

Besides being lighter, mainly because the manufacturer used lightweight stone for the aggregrate, this concrete has a harder surface. When a slab "cures," or solidifies, moisture migrates to the top, making the surface softer. But this slab was cast upside down to give it a denser, harder surface to resist truck tires–if the slab survives. To find out, White and his colleagues have laid it out like a patient on an operating table, with 50 different instruments monitoring its vital functions.

One instrument measures the slab's up-and-down deflection. "When we finally load this up to failure, it will

Richard Wolkomir reports that a fear of falling–namely, the bridges he might have designed–drove him straight out of a good engineering school.

Mary Sansalone and her graduate students check out integrity of a concrete wall, using Impact-Echo device: stethoscope-like instrument employs sound waves to detect weak spots and fractures; laptop analyzes data.

deflect about a foot–a lot of people will come to watch," White tells me. Someday I might drive across the rebuilt Tappan Zee Bridge Lite. I find this operating-room rigor bracing.

But let's be up front about this: concrete doesn't automatically grab you. I grew up in one of the Hudson River Valley's cement-making towns. But I never gave the stuff a thought. Concrete, let's be honest, is not the life of the technological party. And so we ignore it, even though we bet our lives on it every time we drive across a bridge or walk onto a hotel room's balcony. What we should do is thank whatever deity oversees compression stresses for the testing done by White and his benignly destructive colleagues around the country.

The concrete mavens have their work cut out for them. According to the Civil Engineering Research Foundation, the current value of the nation's concrete-based structures exceeds $6 trillion. And a lot of that concrete needs fixing. A study by the Portland Cement Association shows that 10 percent of federal roads require immediate repair or replacement. And the American Association of State Highway & Transportation Officials rates 40 percent of U.S. highways below minimum engineering standards. According to the U.S. Department of Transportation, 230,000 of the 575,000 bridges it monitors are "structurally deficient or functionally obsolete." The numbers are equally depressing for the nation's airport runways, water conduits and sewers. The researchers have other gloomy figures, too, like within a decade bad roads will cost us $50 billion a year in traffic delays.

Much of the concrete that is now crumbling dates to the building splurge of the 1950s and '60s, when we built the Interstate System of highways. Back then trucks weighed less. Traffic was milder. Salt was not yet a standard highway condiment. And concrete, like people, can get sick. Cornell professor Ken Hover agrees to give me a doctor's-eye view of concrete ailments. We meet in an empty classroom with an overhead projector.

"Technically, a concrete is any aggregate blended in different sizes and glued together, so asphalt is concrete," Hover says. "If you buy a Rocky Road Fudge cone, that would be concrete, too–the chocolate chunks are the aggregate and the cream is the glue."

Nontechnically, though, concrete means the stuff concocted from portland cement. The Romans made cement from powdered limestone and volcanic ash. But memories of how to make it dimmed during the Dark Ages. In the early 1800s, a British bricklayer, Joseph Aspdin, aspired to reinvent artificial stone. He began by shoveling up dust from his local roads, where wagon

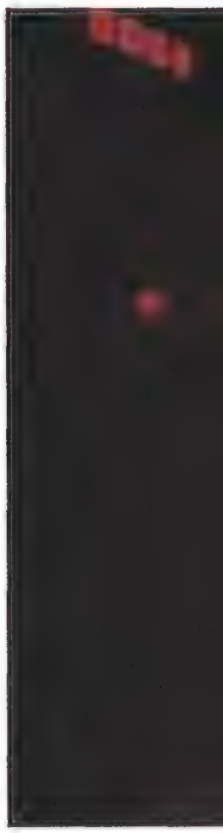
wheels had pulverized limestone paving stones. That impertinence earned him a fine for brazenly stealing the public's dust. But he persevered. First he blended lime with clay. Next he roasted the mixture to produce clumpy "clinker." Finally he ground the clinker into cement powder. When he mixed the cement with water, the lime in it reacted with the clay's chemicals, and the gray pudding hardened into concrete. It looked–to its creator's eye–like the fine stone quarried on the Isle of Portland. He called his new powder "portland cement."

In the United States, the cement market really boomed after the Civil War, as growing cities poured concrete for sidewalks, streets and factory floors. Even Thomas Edison caught the cement mania. Edison had invented a giant ore-processing machine that flopped, and now he hoped to recoup his losses by jiggering the huge rock crushers to make portland cement. His plan was to produce a more finely ground cement and to roast it in huge, high-efficiency kilns. To increase demand, he designed low-cost houses to be built in six hours entirely from concrete, including the furniture, refrigerator, even the piano. Edison's plant was quickly eclipsed by even more-efficient operations. Concrete pianos never caught on, either. But Edison's vision was 20/20–this century would be the great Concrete Age.

During World War I, the United States built a fleet of concrete transport ships. But that was just a warm-up for projects like the Grand Coulee Dam, which contains enough concrete to build a highway across the United States. By 1990, annual global production of portland

Inside the Spancrete Northeast factory, technician dispatches orders from his control console: a traveling drum (top) arrives carrying concrete, then dumps load into a hopper (bottom, right).

From another control console, operators can transmit orders for concrete batches, specifying both the amounts and the particular configurations of the mixes, to the plant's central computer.



cement was 1.3 billion tons, which equals about a ton of new concrete per year per human. One reason we keep putting down all that new concrete is because some of the old stuff gets rickety. And that brings us back to the classroom at Cornell University, where Prof. Ken Hover is giving me a cram course in concrete diseases.

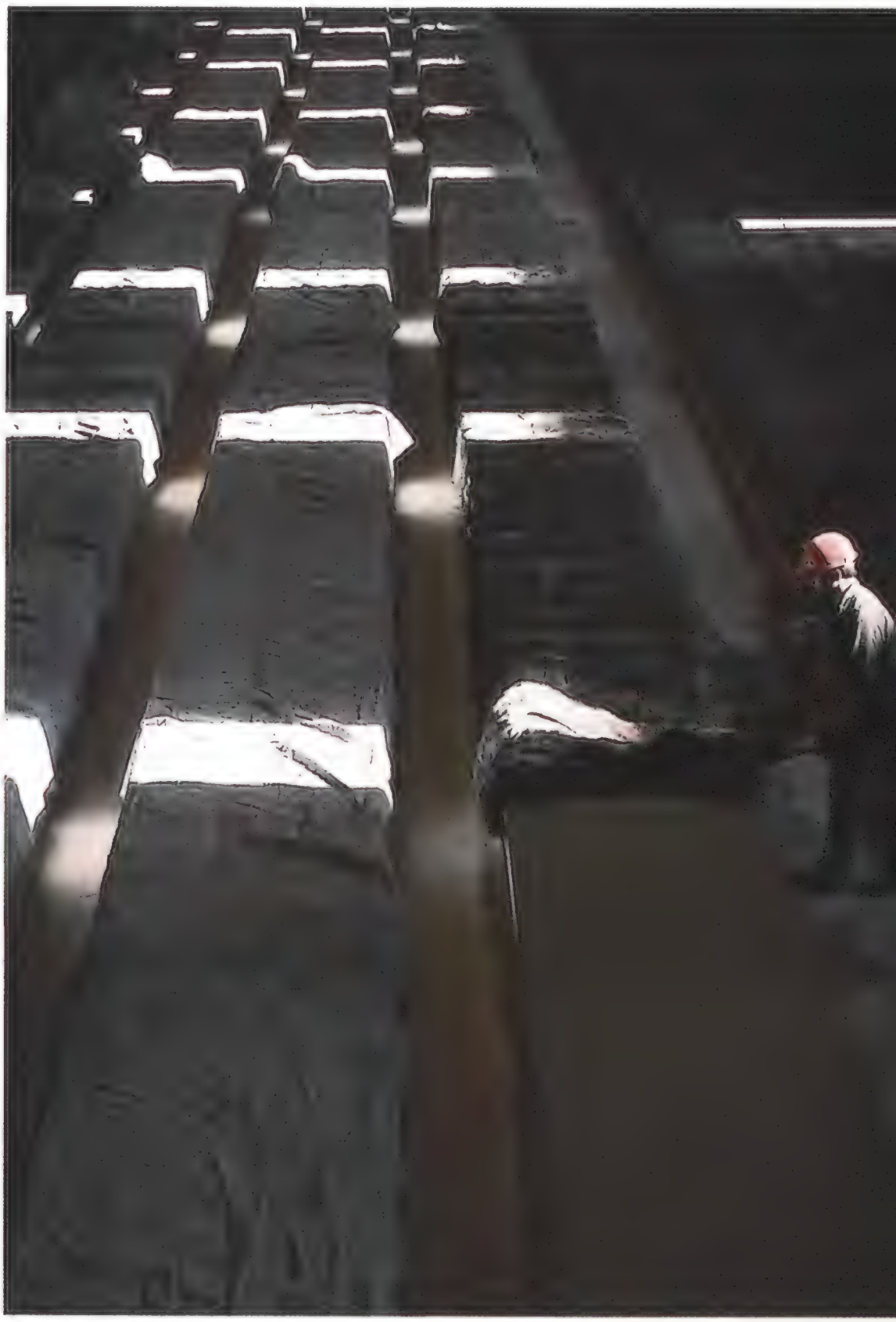
He turns on his overhead projector and beams up a picture of concrete's raw materials in three neat piles–coarse aggregate (stone), fine aggregate (sand) and gray portland cement, slightly coarser than talcum powder. Chemically, he tells me, the cement is a mixture of calcium and silica, plus aluminum and iron. Initially, the cement crystals are roundish. But when you add water, their outer layers peel off like onion skins. Hover shows me a photograph of concrete magnified 3,000 times, revealing the formerly rounded cement crystals after they have undergone the water treatment: now they are irregular. And they interlock.

To drive home what happens when water is added to cement, Hover shows me a boxful of Styrofoam balls, representing the roundish particles of dry cement. They roll freely. But now, to show what happens when you add water, he pushes cocktail toothpicks into the plastic balls. "The crystals get fuzzy," he says. The explanation is that the crystals' outer layers dissolve and then–as the cement cures–they resolidify. But the dissolved material does not return as it was. Instead, it reappears as growths on the crystals' surfaces.

To demonstrate what happens next, Hover shows me how the Styrofoam balls bristling with toothpicks now

At day's end, newly processed slabs of concrete are put underneath special insulated tarps for duration of the night: by next morning, these sections will have been completely "cured," or totally solidified.

Technician at main computer directs operations for the entire plant: every aspect of concrete production, from weighing and mixing to casting, is integrated from this central terminal site.



Soaring Natchez Trace Parkway bridge shows what we expect of concrete: grace under pressure.

mesh together and stick. That, he says, is why when you add water to cement and let it cure, the gray goo hardens into a stonelike material.

The process of concrete mixing, Hover suggests, is touchy, like fancy cooking. Too much water weakens concrete; too little makes the cement so stiff it won't mix or pour. Temperature also is critical. Too cool and the chemical reaction goes too slowly; too hot and it goes too fast, weakening the concrete. Excess heat can be a concrete wrecker even in cool climates. That is because the crystal-making process in cement generates its own heat, so that temperatures in the middle of a mass of curing concrete can exceed 130 degrees F. Hot inside, cool outside, the concrete tears itself apart at birth.

Even carefully brewed concrete is flawed. No matter how dense it seems, it is a maze of tiny tunnels. "Concrete actually is porous, like a sponge–it can absorb up to 10 percent of its weight in water," Hover says, flashing photographs of bridges and dams and highways on the wall. They all look solid to me. But he proves I am deceived by beaming up microphotographs of a concrete chunk, which turns out to be honeycombed.

All sorts of things can seep into those pores and make the concrete sick. One villain is water, which expands 9 percent when it freezes, breaking open the pores and making them wider. Then more water can get in and freeze, until the concrete crumbles. Engineers have discovered a vaccine. It is an industrial detergent based on pine sap. "It's a lot like Pine Sol," says Hover. Added to the cement mix, the detergent creates isolated microbubbles in the concrete. "When moisture in the concrete starts to freeze and expand, the bubbles give the water a place of refuge where it can go," he explains.

Another malady is pollution. Water laced with sulfates from industrial wastes can react with the aluminum compounds in cement to create large crystals that weaken the concrete. Manufacturers now make low-aluminum cement for high-sulphate sites. But that is no help against another plague: alkali-aggregate reaction. Much of the stone and sand that goes into concrete is quartz, or silica. Silica comes in two forms, crystalline or glassy. Crystals work fine. But glassy silica dissolves in alkalis, and portland cement is highly alkaline. As a result, "bad" pebbles and sand grains react with cement to produce silica gel. "It's like the desiccant packed in with electronic and camera gear," says Hover. The silica gel sucks up moisture, expands and cracks the concrete.

Bad enough, but this disease may have a complication. Do electric currents make it worse? That question worries engineers because they routinely run small electrical currents through concrete's steel reinforcing bars to prevent yet another concrete ailment: rust.

Construction crews embed steel bars in concrete because concrete is strong in compression (it can take squeezing) but a wimp at tension–stretch it and it cracks. Steel reinforcing bars lend their tensile strength to concrete. However, water seeping into concrete can rust the bars. The rusted steel takes up more space and the pressure cracks the concrete. One way to protect the bars is to run a small current through them; the current

The recently completed 1,572-foot span will carry 3,700 passengers daily over Tennessee State Route 96.

fends off oxidizing ions. However, the electricity may boost the alkali-aggregate reaction. So concrete suppliers might have to watch their gravel.

Concrete's worst nemesis is salt. Ever since the 1960s Snowbelt states have been pouring de-icing salts onto their highways. We skid less, but the salts are powerful corroders: they turn the reinforcing bars in the concrete on highways, bridges and parking garages into rusty mush. Engineers are trying epoxy-coated bars to keep out the salt, or laying epoxy membranes on top. "But no coating is perfect," Hover laments.

And then there's the threat of another concrete malady, cavitation. "It's a big problem with certain dams," says Hover, explaining that the faster that water moves past a surface, the lower its pressure. As the pressure drops, gases bubble out of the water. "Each time one of those bubbles forms and collapses, it's a micro-explosion," he notes, adding that the explosions can erode concrete. "Essentially, the water is boiling. It's destroyed dams around the world."

Luckily, engineers have now developed a new technique for "looking" inside any mass of concrete, to spot flaws before the dam collapses or the bridge droops.

When I meet Cornell's Prof. Mary Sansalone, I'm in the presence of a professor who wears two hats: engineer and inventor. She devised, along with her graduate students and Nicholas Carino, of the National Institute of Standards and Technology, a sort of stethoscope for concrete.

To understand the neatness of the gadget, consider the current method of checking on a bridge's or building's health: engineers drill out a core for testing, leaving a hole as big as your arm. Borings are still the standard method–the Cornell lab is stacked with what look like concrete artillery shells, ready to be tested to see if the dam or bridge from which they came is sick. To replace that invasive technique, Mary Sansalone and her colleagues have invented a little machine that scans concrete's innards for flaws, and it never leaves a mark.

"X-raying" for weak spots and fractures

Their Impact-Echo device looks like the detonator a silent-screen villain might use to set off dynamite tied to a railroad track. "We have had trouble getting these through airport security," Sansalone notes. But the machine is not dangerous: when you push down the handle, a marble-size steel ball inside swings down on a stalk and gives the concrete a tap. The tiny vibrations waft through the concrete and echo back, indicating the presence of cracks or changes in the material. An attached laptop computer records the telltale echoes and interprets them. Then a squiggly printout gives engineers an "x ray," showing weak spots and hidden fractures.

Sansalone and her students have been flying around the world testing the new gadget. She has inspected concrete construction ranging from a ventilation shaft for a Canadian-Pacific Railroad tunnel in British Columbia to a major new bridge connecting two Danish islands. "We hope the result of all this will be safer buildings and bridges," she says.

Sometimes, however, to save concrete it still is necessary to pulverize it. Elsewhere in the cavernous laboratory, I watch a machine like a giant vise grip a concrete cylinder–builders laying concrete for major projects routinely cast such test cylinders. The giant vise puts on the squeeze. On a huge dial straight from Flash Gordon's control room, a needle creeps up and up. KAPOW! The cylinder shatters. The words "mad scientist" spring to mind. Later, Richard White assures me that such tests are routine for assessing the strength of concrete in bridges and buildings.

Next, White shows me a two-story green machine. It has gripped a section of concrete column and is giving this chunk of building a steady shaking. The concrete already looks as if beavers have gnawed it. "The machine is simulating an earthquake," White explains. "We're worried about Eastern and Midwestern quakes because the buildings here aren't designed for them." Obviously

not. Researchers have covered the distressed concrete column with wiggly lines in orange, green, black and blue to highlight where it has cracked. An emerging area of research is concrete reinforced with strands of organic materials, like polypropylene, to enhance its tensile strength. Researchers hope such plastic-reinforced concrete will stand up better to tremors.

Other new concretes are in the works, too. Organizations ranging from the Army Corps of Engineers to the National Institute of Standards and Technology are on the job. So is the Center for Science and Technology of Advanced Cement-Based Materials, a federally funded consortium headquartered at Northwestern University. Scientists at this research center are lacing concrete with fibers made of steel, polypropylene, glass and carbon. They hope to create more-pliable concretes that stand up better to bending and twisting. Ken Hover says such composites may find uses in everything from bombproof bunkers to house siding and shingles. But the immediate big buzz in concrete circles is high-performance concrete, which already is in play.

Standard concrete can withstand compressive pressures of about 3,000-5,000 pounds per square inch (psi). New high-performance concrete can take up to 20,000 psi, and its vigor is rising as scientists tinker. The Civil Engineering Research Foundation calculates that this new concrete should double pavement life from 30 to 60 years, for a savings of $423 million a year.

High-performance concrete's secret is that it is much stronger and denser than ordinary concrete. Organic additives to the cement, called "super-plasticizers," allow the mixers to use much less water while keeping the concrete liquid enough to pour. Engineers can add compounds like silica fume–ground 100 times finer than cement–to fill in whatever pores remain. The result is a superstrong concrete that resists "shrinkage" (the tendency of a column to shorten as its concrete hardens) and "creep" (the tendency of a column to shorten over time because of the weight pressing down on it).

But I wanted to see even more futuristic stuff, so I followed Richard White's advice and drove to Manchester, New York, for a look at Spancrete Northeast. It is one of the country's most advanced factories for precast, prestressed concrete. After the workers had gone home for the day, Carl Buchman, vice president and general manager, proudly showed me around the plant, where structures such as sports stadiums are designed and built.

On the factory floor, Buchman pointed to a sort of cockpit hanging under the roof, where an operator at a control panel can command unseen robots to mix concrete to his specifications–superplasticizers, water, so much aggregate, just the right amount of cement. Minutes later the batch is pumped into a robot delivery hopper that inhabits tracks up near the plant's ceiling. Filled with fresh concrete, it trundles out on its aerial railway like an obedient dog, searching with infrared "eyes" for a second rolling robot, into which it pours its gray ooze.

While it goes back for more, robot number two trolleys over the factory on its own set of elevated tracks, pouring concrete into forms below. Cables, pulled unbelievably taut, run through the forms. By incorporating that "pre-stressing," the finished concrete member can span long distances unsupported. Meanwhile, the machine also tamps down the uncured concrete it has poured, as if it were making hamburger patties. "Two guys could run the whole factory," Buchman told me.

How high-tech can you get? It was just this notion–a building material dating back to the Romans, now going space-age–that started me on the concrete trail. But Buchman's next comment changed my thinking: "The

Eero Saarinen's Dulles Airport (1962) melded a radical design with modern concrete-construction techniques.

things they told you about at Cornell, we use here every day because we're talking about human lives." Suddenly I see these engineers in hard hats, tapping their calculators, as scientific shamans. There they are, creating a concrete dam or bridge, a structure buzzing with invisible forces–pushes, pulls, twists, bends, chemical fizzes.

Those engineers are ready to reassure us. Back at the Cornell lab, Richard White tells me that, as for concrete's "diseases," not to worry. Once concrete columns and girders are enclosed inside a building, they are–for all practical purposes–eternal. And White says most of our concrete foundations are safe, too, because they extend down below the frost line. And if the architect calls for concrete sheathing on a skyscraper, that should be OK, too. "It's a matter of making sure you have good connections so water can't get in to freeze–design and construction tells all."

In other words, whether a building stands, flakes away, leans or topples all depends on whether civil engineers push the right buttons on their calculators. How relaxing not to be one of them! "Because of creep, a building's columns shorten over the years from the weight they carry, including their own weight," White tells me. Mismatch your loads, or mismix your concrete, and floors tilt. "It's hard to figure because the bottoms of columns are poured before the tops, so they're older, and they're also under more weight."

I offer a silent prayer that I had the wisdom, years ago, to quit engineering school after two semesters. Meanwhile, White is showing me photographs of concrete bridges around the world, gray ribbons held up by spiderweb strands, arching between peaks in the Andes or crossing from island to island in the Baltic. "Look at this," he says. It is a photograph of a bridge under construction over an Alpine valley. From the cliffs on either side, two concrete strands reach out toward each other. "You get shrinkage and you get creep," says White, shaking his head in admiration. "And the engineers building this bridge have to get those two strands to meet precisely, in midair." Let's hope they get it right.

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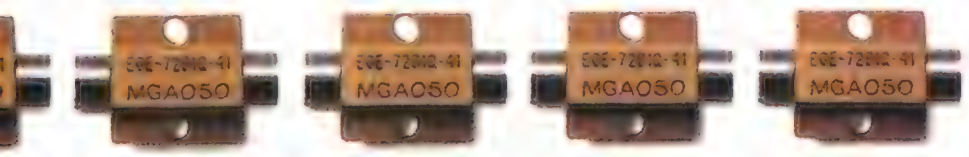

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By Mike Lipske

A new gold rush packs the woods in central Oregon

With wild mushrooms bringing top dollar, and pickers competing for them fiercely, things have been getting ugly in the forest

A picker leaves a buying station with the fruits of his labor; most earn modest sums, a few strike it rich.

Burly, bearded sons of the forest, Fred and Gary are the sort of men who speak their minds and look you in the eye. Tonight they have a few words of complaint about foreigners running around the woods of central Oregon–the least of it being that the outlanders are said to kill and eat songbirds.

The bit about bird consumption comes from Fred, who spits steadily at the dusty ground while waiting his turn outside a buyer's tent on a crisp fall evening in Crescent Lake. "They rape and pillage," he adds of the strangers, warming to his theme. "They have no morals."

"They look for you," chimes in his pal Gary. "They watch your rig [motor vehicle], and next thing you know, you've got 'em following you." Through such sneakiness, he claims, the foreigners find the buried treasure that Fred and Gary also seek. Treasure, says Gary, that he and Fred and their fellows "used to have all to ourselves"–treasure now residing in the large ice chest at the men's feet.

Gary leans down and lifts the lid of the cooler. Inside is a mound of white mushrooms flecked with dirt and pine needles. "That's what it's all about," he says proudly. "White gold."

For a few weeks this fall, that fungal gold was being mined in the pine and fir forests around Crescent Lake, a lovely loch and a hint of a settlement in Oregon's Cascade Range. Seven days a week, before the sun scaled the mountains, hundreds of fortune seekers left area campgrounds to steer beat-up vans and fancy four-wheel-drive vehicles up dusty logging roads into the surrounding Winema and Deschutes national forests. Parking along the roadside, the mushroom miners hauled plastic buckets and long knives into the woods and commenced all-day searches for white matsutakes, a.k.a. "matsies" or "pines" or *Tricholoma magnivelare*, an aromatic, tasty and highly valuable species of wild fungus exported to Japan.

By dusk, tired treasure seekers had returned to Oregon's "matsi" micrometropolis to stand in lines outside any of a dozen buying stations. Inside the tents furnished with makeshift tables and digital scales, buyers feverishly sorted incoming mushrooms into six grades, weighed them and paid out good green cash to pickers. This year mushroom fever burned even hotter, thanks

Hedonist treasures from the forest floor include the matsutakes at lower left and chanterelles at right.

Photographs by Dan Lamont

In Oregon's Winema National Forest, Cambodian picker Choch Hay (above) gently cleans a small matsutake. Mushrooms become cash at buying pits like this one in Crescent Lake (opposite); most will be exported.

to a temporary shortage of matsutakes and a price war between buyers. Dry weather had caused mushrooms to mature more slowly than usual, making them difficult to find, and buyers with contracts to fill were offering unprecedented sums for top-grade matsutakes.

So it was that just after dark one October evening, 17-year-old Bobby Graham of Coos Bay stood along Highway 58 in Crescent Lake, wearing a very big grin and practically shivering with joy. He and a companion, he bragged, had pulled in $1,500 from four and a half hours in the woods that day, selling their grade-one matsutakes at $225 a pound. With his new wealth, Bobby aimed to buy a truck.

Inside a green tent across the road, buyer Mike Seven grinned and held up a picker's plump and perfect white mushroom. "Look at that," he said of the single matsutake, "$75!" The mushroom's owner, a young man with a long pigtail and a big red beard, shouted "*Ch-ching!*"–the sound of an old-time cash register. Seven weighed another of his matsutakes and announced, "$79.38." Again the happy picker responded, "*Ch-ching!*"

Throughout the evening, weary pickers lugged heavy buckets from vans to buying stations. U.S. Forest Service lawmen, their torsos thick with bulletproof vests squeezed beneath uniform shirts, peered into buyers' tents and surveyed the trading, while curious deer hunters wandered the town's fungus bazaar, eyes wide at the commotion and, frankly, at all the Cambodians.

That is the rub for guys like Fred and Gary. Every year an estimated $8 million to $15 million worth of matsutakes are removed from Pacific Northwest forests, and the vast majority (some observers say 80 to 90 percent) of people pulling them from the ground are Southeast Asian immigrants; the visitors flood the woods when mushrooms fruit and then head home, to cities in Washington and California for the most part, when the season ends. Every matsutake or other salable mushroom picked by an outlander means that much less income for the laid-off loggers, grizzled brush rats and other rural Americans seeking sustenance from the woods.

Beery laments aside, most local pickers say it is not the Asian influx per se they object to ("We're not bigots," insisted Fred that night in town). Locals say the problem is the visitors' woefully deficient standards of conduct in the woods. Southeast Asian mushroom pickers are accused of defecating in streams, littering campsites, starting forest fires with carelessly tossed smokes, eating unorthodox wildlife and–most significantly–digging for mushrooms in a careless, heavy-handed manner that threatens future crops.

"There are older Asians who know how to pick mushrooms," concedes Mike Seven. He is a tall, ruddy-faced Oregonian who spends ten months a year buying mushrooms for a Canadian broker. But Seven says every year a fresh corps of inexperienced pickers hits the woods hard. The worst use rakes to expose young mushrooms under the forest's duff layer of pine needles and, in the process, damage the underground network of filamen-

Washington-based author Mike Lipske likes the woods but stalks his mushrooms in supermarkets. He wrote on carnivorous plants in the December 1992 issue.

tous threads from which matsutakes sprout. "They just go through the woods and rip it and tear it," he says.

That there is such bitterness in such a beautiful place is regrettable. It is also frightening. Some pickers tell of shots being fired in the woods to nudge them off productive mushroom turf. Two Asian harvesters have been murdered in Oregon in the past year and a half.

What is happening in Crescent Lake and throughout the Northwest has been called a mushroom war. So far, outbursts or even threats of violence remain vastly outnumbered by flying rumors. But people across the region are in a fever over fungi, and not just because they compete for dollars. Relations between those who pick mushrooms for pleasure and those who pick for cash have also grown raw, with amateurs saying that the rush to provide mushrooms for markets in Japan and elsewhere has harmed our American woods. As for commercial pickers, the racial friction seems at least a little ironic. After all, the grimy business of digging up matsutakes would scarcely exist were it not for well-heeled Asian (in this case, Japanese) customers whose own declining pine forests produce fewer and fewer of the forest fungi.

Members of the same genus, the Asian and American matsutakes have comparable aromas. Imagine a spicy odor suggestive of cinnamon melding with the smell of fresh-baked bread and you have an inkling of matsutake magic, says David Hosford, a Central Washington University authority on the mushrooms. In Japan, native matsutakes are expensive even in good times. "You're talking upwards of $500 a pound," says Hosford. "It isn't something you'd just smother a steak with."

"You can imagine the mindset, these dollar bills lying around out in the forest," says one Oregon mycologist. "Wouldn't *you* go pick them up?"

Matt Briggs had no trouble answering that question, although it has been a while since he had to lug a bucket of fungi down a mountainside. An impulse set Briggs on the road to becoming a wild-mushroom magnate a dozen years ago. "That was my wife, Eileen, going into the woods, picking mushrooms and deciding, 'Hey, let's take 'em to a French restaurant and see what happens,'" recalls the Portland, Oregon, businessman. "And boom! She made $150 in six hours, and a light bulb went on."

Briggs, getting by in those days fixing up old houses, heard the boom and saw the light: "We started picking for two days and then jamming our little Karmann Ghia full of chanterelles [tasty trumpet-shaped mushrooms with an aroma of apricots] and driving to Nob Hill in San Francisco, madly, twice a week, to sell to the idle rich on top of the Hill."

Ranger Steve Gough checks vehicles in Crater Lake National Park, where picking is illegal. Weapons (above) are often seized.

These days Briggs, a tall, skinny 43-year-old with a processing-shipping center in Portland's warehouse district, airfreights mushrooms to wholesale food markets throughout the United States and abroad. His product sells briskly at gourmet groceries and enhances entrees at fine restaurants. He has even supplied wild mushrooms to the White House and to the Queen of England. Briggs' Cascade Mushroom Company markets king boletes, chanterelles, chicken of the woods, hedgehogs, Oregon white truffles, morels and, of course, the treasured matsutakes.

The very model of a modern mushroom entrepreneur, Briggs does $5 million to $10 million in business a year in a young industry that in 1993 was expected to contribute roughly $40 million to Oregon's economy alone. His success, along with the high hopes and simmering resentment of lowly pickers on the ground, is part of a boom founded on the amazing fungal fecundity of Pacific Northwest forests.

"If there is an earthly paradise for fungi, I have seen it, felt it, drawn its rich perfume into my lungs," writes ecologist Elliott A. Norse in his *Ancient Forests of the Pacific Northwest.* While Norse is referring to old-growth forests in particular, many of the Northwest's other conifer woods are mycologically fruitful, adorned with colorful branching specimens of fungi that resemble undersea corals, as well as slimy wonders like the aptly named cowboy's handkerchief, bizarre bleeding hydnellums that ooze red droplets, and big white hericiums that look like pom-poms. In all there may be 3,000 species of mushrooms and, belowground, 500 kinds of truffles growing in the woods of Washington, Oregon and California.

Of course, other parts of North America are rich in fungi. Michigan natives rightly boast about their state's morels. Mushroom buyers for restaurants say that while the largest chanterelles come from California, the most flavorful are often picked in Nova Scotia. What the Northwest's forests yield are unrivaled quantities of several kinds of commercially valuable edible mushrooms, crops that support dozens of companies and put dollars into the pockets of thousands of pickers.

When autumn's cool rains incite untold millions of mushrooms to erupt in forests across the region, Briggs will have as many as 30 buyers in the field purchasing fungi from freelance pickers who work the woods from Alaska down into California, and east into Montana and Wyoming. Of those migrants, Briggs says, it is the Southeast Asians, particularly Cambodians, who have turned gathering, and especially selling, "into a fine art."

This fall, when matsutakes were so scarce on the world market, one Crescent Lake buying station paid out $42,000 on one October evening for 610 pounds of the precious fungi. Among hundreds of pickers scrambling for some of that cash was Sophal Yeun.

"Wherever they grow, we go," says the 23-year-old Cambodian who lives in Tacoma, Washington, stroking a whetstone across a gleaming six-inch blade early one Saturday morning as he prepares for a day in the Winema National Forest. A student at Tacoma Community College until his money ran out, Yeun aims to open a small business, maybe a gift shop, one of these days. For the time being, he follows the fruiting of mushrooms across the Northwest with his father and uncle in a van that has seen better days.

Out in the woods, Yeun sets a steady pace, his eyes

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Dealer Matt Briggs (center) instructs a foreman on how to grade matsutakes for an overseas customer.

Boxes of chanterelles ready for shipment: they'll be sold on foreign markets just 72 hours after picking.

sweeping the ground for telltale, fist-size bumps in the pine needles. Finding one, he kneels and sticks his knife blade straight down into the soft earth. Digging carefully, he unearths a "button" matsutake, a chunky, budlike young mushroom. A good find. The fungus goes into his plastic bucket, the knife into a sheath on his belt, and he stands and resumes searching.

Forty minutes of walking nets Sophal Yeun five matsutakes of varying grades. "You get tired pretty quick when you don't find the mushrooms," he says, "because you walk a lot."

At midday, the troupe returns to the van parked on a logging road and has lunch. Yeun's uncle, a laid-off printer named Choch Hay, has a hard-boiled egg and a beer. No one serves songbirds.

Tonight at a Crescent Lake buying station, Yeun and his father together will clear $257. His uncle will earn $81. This is nowhere near the income of some of the apparently more skilled local pickers, but to Sophal Yeun the work in the woods pays another kind of coin. "Out here, you're like, you're free, you know. You don't have to take orders. Nobody to tell you, 'Do this, do that.' It's the freedom, to me."

And the downside? "The people, actually," he says. "A feeling of being unsafe in the woods."

In October 1992 a Cambodian mushroom picker was shot and killed in the national forest near Crescent Lake; the victim himself was wearing a .45 automatic in a shoulder holster. Klamath County Deputy Sheriff Norman Hatcher says the murder remains unsolved. A gambling debt has been mentioned as a possible motive. Hatcher says the case has been difficult to investigate, apparently for lack of cooperation. "They don't really trust the police," he says of the Asian pickers. In June 1993, in Oregon's Blue Mountains, another Cambodian picker was murdered, in an apparent robbery.

"Probably about 95 percent of them are all armed, most of 'em guns," Hatcher says of mushroom pickers, Caucasian as well as Asian. If that figure sounds a tad inflated, there is no denying that dangerous people are skulking about in the mushroom woods.

Disarming illegal pickers in the park

At Crater Lake National Park, also in Klamath County, ranger Steve Gough unlocks an evidence closet to show off the booty from 48 hours of holding the line in the mushroom war. Unlike the situation on national forest land, mushroom picking in the park is forbidden. Nonetheless, matsutake poachers have targeted Crater Lake for the past few years. On September 27 and 28, in addition to writing 13 citations (at $250 each) for illegal matsutake harvesting, rangers collected a .22 rifle, two .38 revolvers and three pellet guns, as well as assorted machetes and knives.

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Fungi thugs do more than trash the woods and rattle nerves. They fuel the mills of rumor and fear in the forest. Some mushrooming veterans argue that a sense of proportion is being lost.

"It is not a war out there," insists Jerry Smith, special-forest-products coordinator for the Winema National Forest's Chemult Ranger District, half an hour down the road from Crescent Lake.

An affable Oregon native, Smith these days worries not only about catching forest fires but about stamping out smoldering rumors. "Yesterday, I talked to CNN," he says at the height of this fall's "matsi" madness. "They'd heard a [false] rumor that four Asians had been killed. It's been nuts!"

The Chemult's forest of fir, hemlock and pine vibrates with matsutake pickers every fall until the snow flies. As of October 1, the ranger district was reporting a daily picker population of 800 to 1,200 persons. The district had sold more than 3,000 picking permits, earning roughly $65,000 for the national forest. The year before, more than 25 tons of matsutakes were plucked from the woods over a span of 40 days.

Smith expresses a degree of empathy for his guests seldom heard in the debate over commercial mushrooming: "Very few really make an enormous amount of money doing this. It's very similar to the gold rush. Everybody wanted to make their fortunes. But most people still ate beans. Here the difference is that most people, you know, they eat rice and beans." "I think Jerry is the only guy that is caring and doing anything,"

David Arora

The easily recognized morel tops the list for many connoisseurs.

David Arora

Hedgehogs share color and texture of chanterelles.

Jeff Lepore

Chicken of the woods (right) is a bracket fungus.

White truffle almost equals Italian variety.

Dan Lamont

says Mike Seven. But he also says the ranger "doesn't have the power and the clout" to make a difference.

"Look at the woods," says Seven, launching into a critique of Asian mushroomers one afternoon while washing his van. "I've tried to educate them as a buyer for four years. And they come in the same day with the roots hanging on the mushrooms. You tell 'em once, you tell 'em a thousand times." He says that clumsy harvesting practices, and the fact that there are just too many pickers working the woods, have significantly reduced the annual matsutake crop from around Crescent Lake over the past few years.

"If the state isn't willing to step in, I'm going straight to the environmentalists and get this whole thing shut down," Seven warns. "I'm not going to see the woods where I grew up raped and pillaged." In fact, he and others in mushrooming have broached the idea of seeking more stringent restrictions on commercial picking on public lands. He would like to see pickers required to obtain a $500 license for the season (the Winema and Deschutes national forests now charge pickers just $5 a day), with licenses granted through a lottery as a way to sharply reduce the number of pickers in the woods. He says license fees might help pay for some pickers to work as wardens policing the matsutake beds.

Bad blood in the woods is not confined to professional pickers. There are hobbyists–nature-loving folk who join local mushroom societies and chase chanterelles on fall weekends–who would be thrilled to see all commercial mushroomers put out of business. The amateurs blame greedy pros for steamrolling through favorite picking spots and for bringing an atmosphere of violence to the woods. They also say the most popular mushrooms are in danger of extinction.

Mycophile Steven Taylor, of Federal Way, Washington, says he now steers clear of mushroom patches he used to visit on the Olympic Peninsula. "With the guns and shooting and so forth, we just don't go there."

Both: David Arora

Cuplike chanterelles are prized for flavor, especially in soups.

The king bolete has risen rapidly in popularity among Americans.

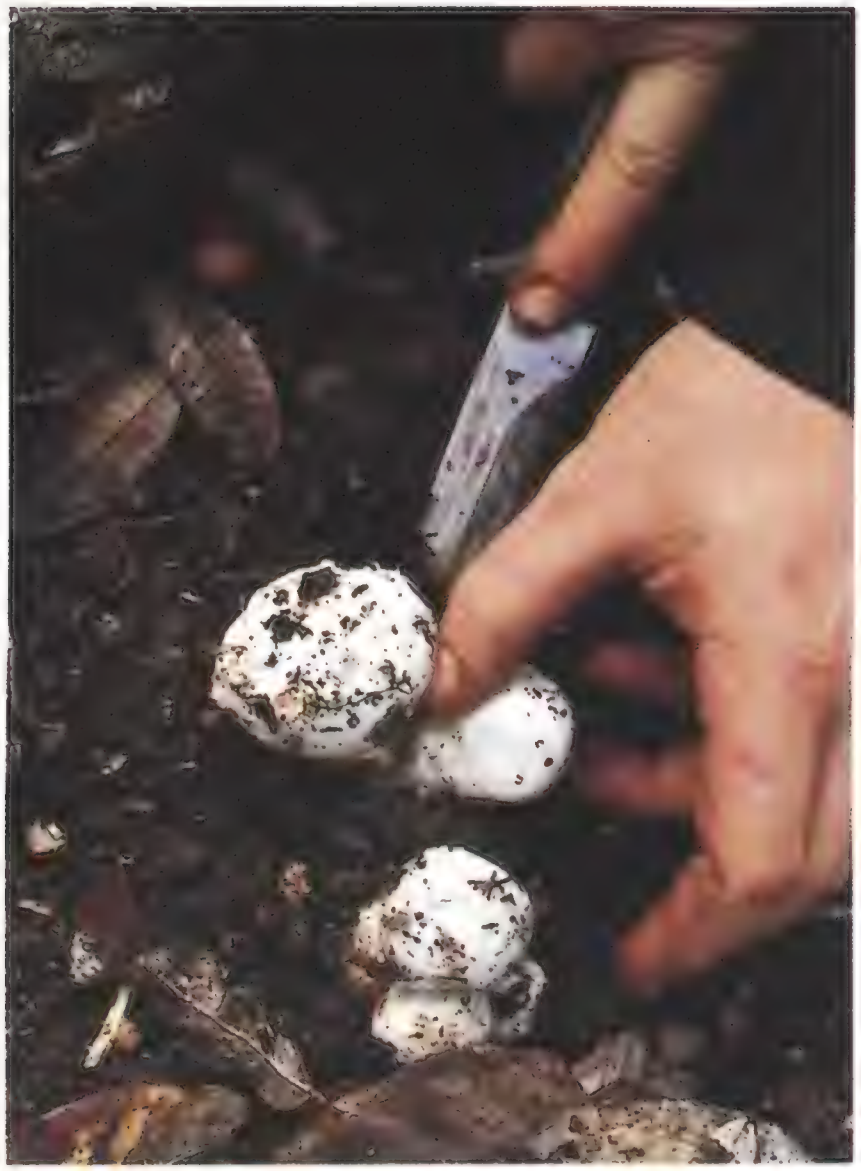
Lots of worries, but few definite answers

Writing recently in a picker periodical, *Mushroom: The Journal of Wild Mushrooming,* Taylor also decried the commercial plundering: "To those of us to whom wild mushrooming is a consuming hobby, a chance to leave the city behind and enjoy quiet days in the woods seeking and finding a quarry that is beautiful and endlessly fascinating, this legal rape of the woods is a tragedy. . . . Money, market demand and a growing population have collided with a fragile and limited ecosystem, and the resulting crash has altered our forests, maybe forever."

Mycologists, scientists who study fungi, are also uneasy about the booming trade. They worry about soil compaction in the woods from thousands of tramping feet, and about damage to the forest floor from overeager pickers grubbing for valuable young button mushrooms beneath the duff layer. Yet, unlike many hobbyists, the scientists feel bound to admit the limits to their knowledge. "We don't even know how abundant the resource is," says Michael Amaranthus, a Forest Service research ecologist investigating effects of harvesting on matsutakes. "Are we picking 95 percent of the mushrooms? Are we picking 5 percent?"

Most scientists also say there is little evidence, so far, that removing mushrooms adversely affects future populations. "One has to remember that the mushrooms are just the fruit of the fungal colony," says James Trappe, a preeminent Oregon State University mycologist. "In moderation, it does little harm–like picking apples."

About a year ago, Trappe led a brief autumn foray by



When it is done correctly, harvesting mushrooms does no more harm than picking apples from a tree.

several university mycologists to Opal Creek, a famously old, beautiful and as yet unlogged rain forest on the Cascades' western slope. For an hour or two they wandered the woods, with its thousand-year-old trees, its rhododendrons and clumps of bear grass and salal, and its green carpet of moss dotted with choice boletes, matsutakes and gypsy mushrooms, as well as with tiny bird's-nest fungi, glowing angel wings and pretty but poisonous sulfur tufts. Trappe, busily stuffing eatables into a canvas bag slung over his shoulder, certified Opal Creek as mycologically acceptable: "I'd rate it an 8, I suppose, perhaps a 9, as a nice place to be," he said with a smile.

Trappe also poked under patches of moss to see where rodents had dug for buried truffles (small potato-shape fungi that fruit underground); while he did so, he sketched some of the connections between fungi and other living things in the forest. Those links suggest that the really compelling story in the mushroom woods is not the mood among pickers, professional or amateur, but the vital role of fungi in the natural order of things.

Up in the woods' attic, for example, fungi that rot treetops create cavities that are used as homes by pileated woodpeckers, flying squirrels and other penthouse dwellers. Down on the ground, animals from hares to bears chomp on forest fungi that function like salt licks. "They're an important food source," said Trappe. "Minerals such as potassium and phosphorus and nitrogen may be as much as 30 to 100 times more concentrated in the mushrooms than they are in the foliage of shrubs and other things that the animals browse." And down in the basement of the forest one finds the most provocative animal-fungus connection of all.

For years, scientists in the Northwest had puzzled over finding the remains of flying squirrels–rodents that dwell in treetops–in the stomachs of bobcats and coyotes. Neither of those predators is known for its flying ability, so how were the squirrels getting eaten? The answer came when Trappe and colleagues examined the contents of squirrel stomachs and fecal pellets. "We learned that the northern flying squirrel subsists primarily on truffles," says Trappe. "Then it was clear. They had to sail down to the ground to dig up the truffles."

The northern spotted owl also seizes on such moments to make meals of squirrels, rather regularly it turns out. No ordinary owl, of course, this is the bird that has become a controversial symbol of the Pacific Northwest's bitter timber conflicts. To Trappe, however, the owl and the thread that links it to squirrels and truffles make sweet science. "All of a sudden we have this beautiful tie between what happens belowground and aboveground–with the truffles being a food source for the squirrel, which is a food source for the owl," he says. In fact, by killing flying squirrels (which have little bellies stuffed with truffles) and then airlifting the rodents perhaps miles across the forest before eating them, the owl even functions as "a long-distance, spore-dispersal mechanism" for the fungi.

Fungi and friends make happy forests

"Happy truffles, happy spotted owls" is how a Trappe colleague sums up this food chain centered on hapless squirrels. Happy forests, too, because without the presence of truffles and of mushrooms, trees fail to grow properly. Many of the mushrooms that Trappe and other Opal Creek visitors were dropping into sacks and baskets that day, including commercially valuable species such as chanterelles and matsutakes, are known as mycorrhizal fungi. And while it is the aboveground mycorrhizal mushrooms that hobbyists and pickers lavish attention on, an equally important part of such organisms lives belowground (*Phenomena*, October 1993).

Mushrooms are a fungus' reproductive fruiting body. They pop up to broadcast tiny spores through which the species spreads. But the bulk of a fungus organism consists of an underground network of fine filaments called a mycelium. In the case of mycorrhizal mushrooms, these tiny strands help feed the forest. The

strands surround and penetrate tree roots, forming sheaths, like tiny socks, around the root tips. Through these specialized "fungus roots," the fungal organism absorbs much of its energy in the form of sugars that trees produce through photosynthesis. In return, the tree takes up water as well as nutrients, such as phosphorus and nitrogen, that the fungus has concentrated; essentially, the fungus serves as an extension of the tree's root system.

Trappe says tree growers learned about the importance of mycorrhizal fungi the hard way, after the practice of fumigating soil to kill root diseases became common in nurseries. The fumigation also killed useful fungi; many nursery trees remained stunted or even died. "Douglas fir, for example, just would not grow without its mycorrhizal fungi," he says. Scientists estimate that Douglas fir, the most valuable timber tree in the Northwest, may form mutually useful associations with as many as 2,000 kinds of mycorrhizal fungi .

Anyone who cares about mushrooms–whether hobbyist or migrant picker or New York chef dependent on a steady supply of boletes–has to care about the health of forests. In Europe, for example, where air pollution is partly blamed for forest die-offs, many mushroom species, including chanterelles, have also faded. Some European mycologists fear mass extinctions of fungi. Functionally, the forest trees and the mycorrhizal mushrooms are one organism. As one fares, so does the other.

Trappe admits to feeling "fairly encouraged" that kinder, gentler forest management practices are taking hold in the Pacific Northwest. On this misty afternoon at Opal Creek, Trappe has other reasons to be content. His shoulder sack bulges with edible mushrooms for that evening's dinner table.

From out of the gathering green gloom of the woods, a university colleague materializes at Trappe's shoulder. In his muddy fingers, the man clutches a hefty matsutake. His eyes roll upward in a pantomime of bliss as he sniffs the fat white fungus. Trappe shoulders his sack and follows his friend with the matsutake a little deeper into the darkening forest. "Man," he says, "are we going to have a great mushroom feed tonight."

Mushroom maven James Trappe inhales deeply from a fresh-picked matsutake. He worked on the details of how flying squirrels depend on truffles, and how the northern spotted owl depends on the squirrels.

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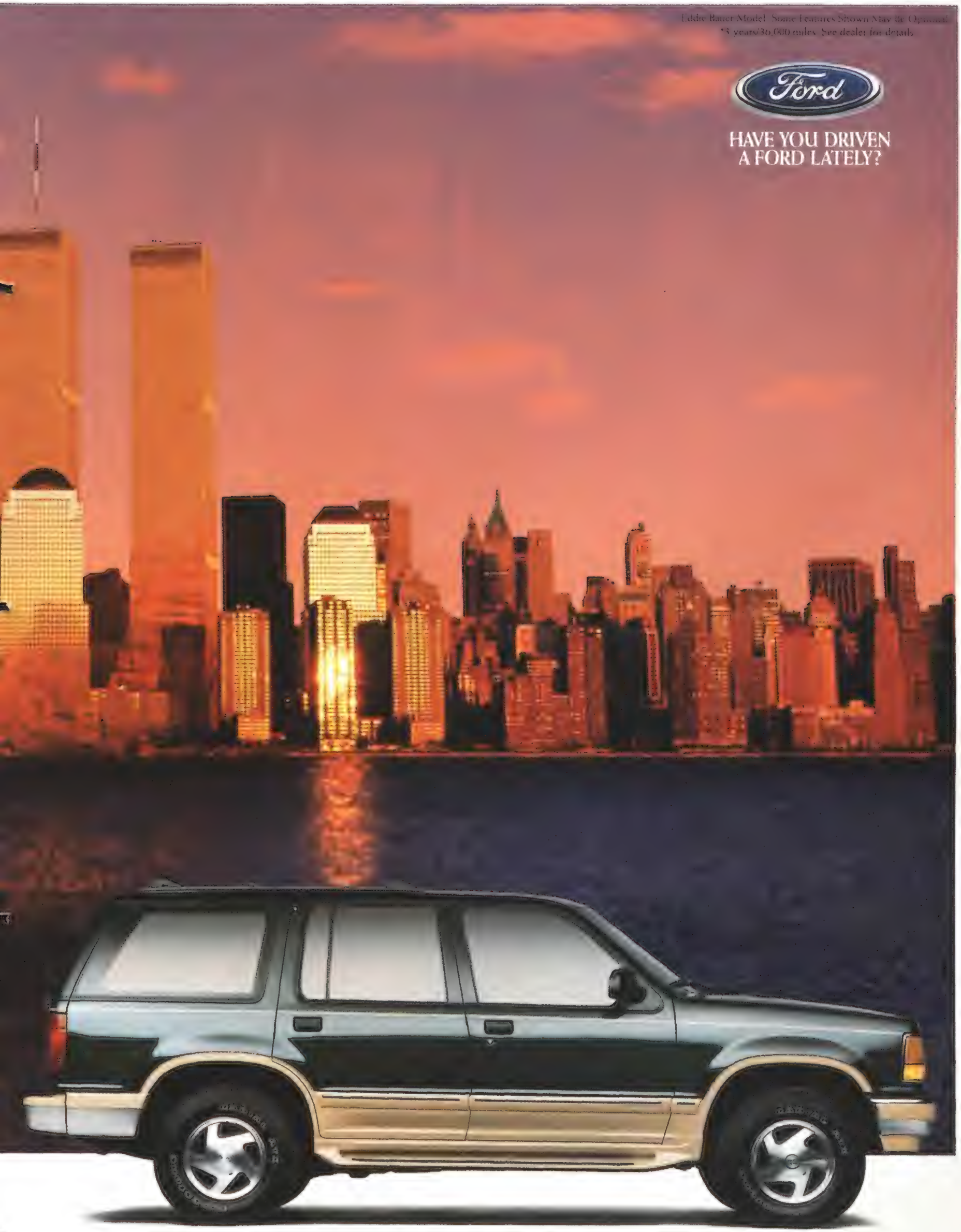
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HAVE YOU DRIVEN
A FORD LATELY?

In its slip across the East River from Manhattan, Bargemusic hosts more than a hundred concerts a year.

By Paul Gardner

Chamber music barges in on the Brooklyn docks

Olga Bloom had the crazy idea of turning an old boat into a concert hall; now, the music is grand–once you get your sea legs

The constantly changing roster of performers is fed by the musicians who pass through the area on tour.

Below the Brooklyn Bridge at the old Fulton Ferry Landing, where commuters once thronged ferryboats to reach Manhattan, floats a squarish, plumpish white *thing*. When a hefty wind stirs up the East River, it bobs to and fro like a toy boat in a big bathtub. Tied up in its slip, the vessel looks something like a houseboat, with its windows, entryway and railed stairs leading to purple geraniums and pine trees on a roof "promenade."

This seafaring curiosity is a 40-year-old coffee barge transformed into an unsinkable concert hall of international reputation. Known as Bargemusic, it rivals the recital rooms at Carnegie Hall and Lincoln Center. "You want to hear chamber music?" the concierge at the Ritz-Carlton in New York asks a European couple. "Then you must go to the barge, in Brooklyn."

The idea sounds highly improbable. Most visitors don't even know where Brooklyn is. If they do, it seems like a rough crossing. Nonetheless, cabs and limousines bearing UN delegates, Swiss diplomats and Russian tourists–not to mention foreign and American students who walk from the subway–converge at the gangplank. On Thursday evenings and Sunday afternoons, year-round, they join devoted locals and Manhattanites, who may feel a bit nervous about their venture to the exotic outpost across the river.

Visitors' anxieties, if they have any, immediately vanish once they settle into the snug-as-a-bug setting. The little "houseboat," paneled in cherry, has a fireplace and, behind the tiny performing platform, a glass wall that offers a panorama of the Manhattan skyline.

"The barge creaks, the music soars"

"The Royal Festival Hall in London is on the Thames and has a nice feeling," says Herbert Golub, a professor of music at Kean College in Union, New Jersey. "The Kennedy Center is on the Potomac. But the barge gives you a direct involvement with nature and music. The barge creaks, the music soars." He is one of many professors from nearby colleges that fill the barge with eager students on Thursdays. "They love it," he adds; "it's an unexpected experience for them."

At the barge there's visible camaraderie between music-lovers and musicians who revel in the chance to play the surprising, the forgotten, even the eccentric works. The impresario is a spunky woman in her 70s named Olga Bloom. "It's her personality that shapes Bargemusic," says cellist Fred Sherry, who directed the Chamber Music Society of Lincoln Center for four years. "Olga appreciates that chamber music should have a special environment: civilized but cozy."

Bloom, a musician who plays both violin and viola, welcomes ticket holders onto the barge, her barge, with the benign smile of a hostess presiding over a marvelous party. Ideally, maybe, chamber music should be heard in an Empire- or Louis XVI-style drawing room, where servants in livery pass teacups and cucumber sandwiches. At these gatherings, Bloom's faithful volunteers serve cheeses, homemade breads and deviled eggs, cakes and cookies, and coffee and wine from a tempting buffet table. A duchess from the court of Louis XVI would not be displeased.

To the uninitiated, chamber music–wherever played–can seem forbidding. Unlike a vast concert hall that allows a listener to remain safely anonymous among a thousand faces, the chamber music "space" brings players and audience together. "We hear the slang phrase 'in

Photographs by Jonathan Atkin

Olga Bloom, a professional violinist, paid $10,000 for the barge and had it converted to a performance space.

your face,'" laughs Bloom. "Chamber music is in your face. Now, that's daring, and also spiritual. In our mechanized world, people long for this kind of intimacy."

Historically described as a "musical conversation" for up to eight players–usually without a soloist or conductor–chamber music was performed in the salons of late 17th- and 18th-century aristocrats. A subtle art form developed by such masters as Haydn, Mozart, Beethoven and Schubert, it needs an intimate backdrop to show off the expressive range of such instruments as violin, piano and cello. Emulating the refined music circles of England, the nobs of early Virginia held chamber concerts in their stately homes. One avid participant was the young Thomas Jefferson, an amateur violinist who called music "the favorite passion of my soul." Today, chamber groups, with a repertoire from Baroque to atonal, are gaining popularity across the country.

When Bloom opened the barge more than 15 years ago, chasing away spooky shadows from the waterfront, her plan was to have concerts by students from conservatories. That was too idealistic. Surviving on federal and state grants as well as corporate and private funds, she realized the concerts needed more spit and polish. So, in 1984 she appointed Korean-born violinist Ik-Hwan Bae as artistic director. Bae, now 36, keeps a file of some one hundred musicians he knows from international festivals who eventually stop in New York, on tour or for a recording session, and who want to play on the barge. Enthusiastic performers spread the word, and soon music critics from distant places come aboard. The critic of a Dutch newspaper has written: "Every now and then police sirens can be heard coming from the Brooklyn Bridge. Passing freighters cause a strong rocking motion of the barge, and, when a tugboat passes very close by, the sheets of music flutter off the music stands. It's all makeshift, but nowhere can you hear music that sounds better than here."

Bargemusic is a dream come true for Olga Bloom, who spent many evenings performing chamber music with her husband, Tobias (a violinist with Arturo Toscanini's NBC Symphony Orchestra), and friends in their Long Island home. In the mid-1970s, after Tobias' death, she bought the barge for $10,000 and had it converted and made shipshape for beauty and safety.

"Chamber music is the epitome of civilization," she states, striding briskly along the deck, inhaling salty sea air. "There's a sameness to our schools and stores and apartment houses that stifles the creative spirit. But chamber music on a barge, I told my pals–who thought I was crazy–could be unique." A sloop sails by, heading out to sea, and the barge, tilting, groans in its moorings. She watches the sailboat disappear from view in the swollen river.

A short, gritty woman with luminous eyes, Bloom grew up in Boston, "a child of the Depression." She received free violin lessons from a music professor at Boston University who also played with the Boston Symphony, and continued her studies–as a scholarship kid–at the New England Conservatory of Music and the Tanglewood Music Center. She arrived in New York in the early '40s, during the golden era of the Broadway musical, when theaters simultaneously ran shows by Cole Porter, Rodgers and Hammerstein, and Irving Berlin. Work was plentiful; Bloom played in the orchestras of musicals, worked in recording studios and did background music for movies. "The war was on, which meant that as a woman I got opportunities that might not have been available." In one 1944 hit, *The Song of Norway*, an operatic pastiche about Edvard Grieg that used his own music, she was the only woman in the pit other than the harpist. Some of the men in the pit were uncomfortable, but Bloom didn't let it bother her. "When I arrive at the theater I'm not a man or a woman. I'm a musician," she told a reporter. Bloom later joined Leopold Stokowski's American Symphony Orchestra and moved, with her husband, from Greenwich Village to a suburban house on Long Island.

Today, Olga Bloom lives on a cobblestone street in the Red Hook section of Brooklyn; her small house dates back to the Civil War. Red Hook, which some say got its name in the 1600s from the color of the clay in the land,

Paul Gardner wrote about art collectors Dorothy and Herb Vogel in the October 1992 issue. Universe brings out his book on sculptor Louise Bourgeois in April.

once handled million-dollar shipments at its piers and warehouses. Generations of gangsters have walked its streets–Al Capone in the 1910s, Joey Gallo in the '50s. It's still a tough neighborhood; it was in the headlines earlier this year when two teenagers were convicted of killing an elementary school principal caught in the crossfire at a housing project. One evening Bloom returned from barge duties to find her house broken into. The burglar, probably a crack addict, had pulled out the copper piping in her basement to resell. The intruder also took her violin. "I'll never get over that loss," she says quietly. But things are looking up–one of her neighbors is a retired police detective.

On a typical day, Bloom hops out of bed with the birds and is soon rumbling toward the barge in a 1983 Cadillac De Ville, donated by a patron. At a nearby deli, she picks up a cranberry muffin and black coffee.

"Olga, I want to come to the Sunday concert," says a young woman in the deli line. It's Paula Daigneault, an executive at Brooklyn Union Gas, who's also dashing to the office. "I'll put you down for a single, love," responds Bloom. "We're just about sold out. You caught me in the nick of time." Downtown Brooklyn is like a small town and everyone knows Olga. Tickets are usually obtained by subscription or phone, but some, like Daigneault's, are reserved on the run.

Parking in front of the barge, which is moored next to the posh River Café, Bloom waves hello to dock workers who call out protectively, "We're keeping an eye on you, Olga." Then she joins her assistant, Joan Folwell, at her desk–a long yellow expanse of pine that doubles as the refreshments table during concerts.

Amid the phone's constant ringing, Bloom thumbs through a stack of messages: one of them concerns maintenance of the barge's hull, which costs $30,000 every two years; others deal with such things as grant proposals to defray the annual $650,000 budget; requests to rent the barge for parties and weddings; and the monthly benefit candlelight dinner concerts that lure new, younger patrons from Wall Street.

The fun part, for Olga, is keeping track of reservations and allotting seats. The barge accommodates 130; the last row is only 32 feet from the platform. "How's that for intimacy?" Bloom remarks, munching on her morning muffin. With the upcoming concert just two days away, she finds seats for eight more and adds

Bargemusic's answer to the drawing room: violinist Ik-Hwan Bae, pianist David Oei and cellist Warren Lash take a bow after winding up a Sunday-afternoon concert with a trio by 19th-century composer Bedrich Smetana.

Close quarters pose no problem for the guests at annual floating dinner thrown by local boosters, the Brooklyn Heights Neighbors of Bargemusic.

Daigneault's name to the chart. Tickets are unmarked, so Bloom gets to move people around as if she were playing Chinese checkers. Sponsors and loyal subscribers find themselves up front, the others according to when they reserved tickets. Place cards atop red velvet cushions on folding chairs add to homey informality. There are no ushers. Can't locate your seat? "You're in the sixth row," she'll say, with a guiding arm.

During the afternoon Bloom lunches with a sponsor to sort out a possible financial problem and then discusses esthetic issues with Ik-Hwan Bae. Learning that a violinist from Seattle, a pianist from Sweden and a cellist from Japan may be in the area around the same time, Bae considers a repertoire for them. A small, intense entrepreneur who pridefully juggles 104 concerts a year, Bae says, "Bargemusic offers more chamber music performances than any other venue in the world." The musicians usually rehearse at his home in Brooklyn and may perform after as few as three practice sessions. Despite their immense technical know-how, each of them plays, out of sheer joy, for the modest sum of $400 a performance.

Reactions of first-timers on the barge can result in humorous, rueful situations. One wintry night, snow was falling thick and fast. A ticket holder phoned to ask if the concert was still on. "Come on down!" Bloom bubbled without hesitation. "The musicians are here, we're playing." Forty staunch souls braved the elements for a concert that closed with Rachmaninoff. A first-time violinist wasn't prepared for the lurching of the watertight music box. Although white mist covered the windows, the violinist's face was definitely green. At another concert, racing speedboats caused an abrupt tipping. The piano began rolling toward the audience. Ik-Hwan Bae immediately stopped the music and stuffed a program under a wayward wheel. Then there was the summery afternoon when an overstimulated Frenchman, carried away by the music, the setting and maybe a champagne brunch, wandered the deck during intermission, exclaiming, *"Ce n'est pas vrai!"* ("It can't be true!"). Leaning over a rail, he kerplopped into the river and had to be fished out. *"Ce n'est rien"* ("It's nothing"), he said gallantly. Bloom disagreed: "Get a tetanus shot instantly," she commanded. And being on the barge can make people giddy: at the end of a concert, a bunch of businessmen from Russia were hugging one another. "Our Prokofiev was especially emotional that night," recalls Bloom.

A streak of sunlight dapples the sky on the Sunday for which Paula Daigneault has reserved a ticket. The concert features Schubert's Quartet No. 14 in D Minor for Strings, D. 810–known as "Death and the Maiden." The dynamic piece, which explores the theme of romantic longing, draws an overflow crowd, some prepared to scrunch together on the platform to one side of the musicians. Converging on the barge in twos and threes, people are first greeted at the door by Olga Bloom. "Who told you it was my birthday last week?" she jovially asks a distinguished-looking gentleman with a luxuriant mustache. "*I* couldn't fit 74 candles on a cake!" Bloom wears a maroon skirt and sweater and black woolen stockings. With her gamine haircut, she exudes the bohemian simplicity of a student at the conservatory.

Then she spies Daigneault. "Paula!" she exclaims, clasping her hand. "I put you on the third row." Amid a continual hum of conversation, Daigneault purchases a black coffee and lemon cookie. While living for some years in Washington, D.C. she had attended chamber music concerts at the Phillips Collection (SMITHSONIAN, May 1979). Now she's one of Bloom's regulars. The

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smallness of the barge makes the concerts special, she says. "Living with all the pressures of New York, these concerts keep me sane."

Four musicians, led by Bae, make their way through the crowd and arrange themselves on the platform. Murmurs fade to whispers as they tune up: somber sighs from the viola, a full-throated sonority from the cello and singing notes from the two violins. The spectators become silent as the musicians make eye contact and suddenly break away into rich, crystalline tones.

After the concert, Bloom dreamily watches the flight of a solitary seagull till its wings shine over the sun-gilded river. "I'd like to see chamber barges on the Potomac and on the Charles River in Boston and at the edge of Puget Sound in Seattle," she says. "We could circulate the musicians from East to West. Too many artists are forced to spend lives in obscurity, teaching music. Let's put the talent on our waterfronts!"

Though Bargemusic operates as a closely knit family, it recently weathered a chilling sea, as do most arts groups at one time or another. In this case, a serious disagreement over budgetary priorities–what else?–resulted in a complete rift between Bloom and Bargemusic's board of directors. In its wake, support rushed in from Brooklynites and blue-chip patrons across the river. Like a scene from a Judy Garland-Mickey Rooney musical ("We'll do it ourselves, kids"), teachers, diplomats, carpenters, doctors and lawyers threw a benefit. They cooked a zesty dinner and adorned the barge with candles and banks of flowers. The party, with a chamber piece by Mendelssohn, raised $30,000 and kept the enterprise afloat.

Once a month, Bloom and three musician friends gather on the barge for a night of private ensemble playing. On one breezy spring night, as the quartet was deep into Beethoven, she noticed–with a slight shiver–a cluster of faces pressed against the barge windows. Bloom opened the door, beckoning a group of Hispanic youngsters inside. "But–we don't understand the music," a youth stammered. "You don't have to understand," she said softly. "Just listen and *feel it*."

With the guests sitting cross-legged on the floor, the ensemble resumed, moving from Beethoven to Brahms. The visitors stayed till the last note.

Two impresarios of the improbable: music director Ik-Hwan Bae and founder Olga Bloom hoist the flag. Bargemusic has joined the Brooklyn Bridge as one of the distinctive icons of the borough's waterfront.

Where there's Smokey, there's never any fire

Old fur face has been prowling, growling and sniffing the air for a half-century; it's about time someone threw him a party

In 1950, when firefighters found him in the man-made inferno that had engulfed New Mexico's Lincoln National Forest, the burned, frightened, four-pound cub was clinging to the smoking remains of a blackened tree. Inevitably, they named him Smokey.

His legendary namesake had been born of necessity during World War II. Concerned about maintaining a lumber supply and alarmed by a submarine attack near California's Los Padres National Forest, the U.S. Forest Service wanted to educate civilians about the dangers of forest fires. Working with the Wartime Advertising Council, they created a woods-dwelling spokes-mammal to convey their urgent message.

In the half-century since, Smokey Bear, wearing a stiff-brimmed campaign hat on his head and an intelligent, quizzical expression on his face, has become one of the best-known and best-loved icons in our history. He has appeared in advertisements and cartoons, on billboards and a postage stamp. Meanwhile, the orphaned New Mexico cub took up residence at the Smithsonian's National Zoological Park; there, as the embodiment of his famous forebear, he hobnobbed with celebrities like "Hopalong Cassidy" and delighted a generation of schoolchildren until his death in 1976.

The Forest Service has created a new poster (detail, right) to kick off a yearlong celebration of Smokey's golden anniversary. He lofted in Macy's Thanksgiving Day Parade, floated at the Tournament of Roses, and he'll participate at the Super Bowl. The Smithsonian's Office of Elementary and Secondary Education, with the Forest Service, has designed a free, colorful learning kit for teachers (see *Highlights*, page 16). On February 4, Fernbank Museum of Natural History in Atlanta opens a traveling exhibition on Smokey's life and the life cycle of forest fires. The show will be in Washington on August 9 for an anniversary party on the Mall, where the Forest Service will serve everyone cake.

Ruth Ravenel

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1945

1954

1964

Cowboy film and TV star William Boyd, as "Hopalong Cassidy," visited the youthful Smokey in 1950.

Orphaned Smokey nuzzles Judy Bell; her forest ranger dad flew burned cub to vet, her mom nurtured it.

1976

1983

1993

Artist Rudy Wendelin designed a 1984 commemorative stamp that shows Smokey and his real-life namesake.

Smokey, his wife Goldie and their adopted son welcome pandas Ling-Ling and Hsing-Hsing to National Zoo.

U.S. Postal Service/National Postal Museum

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By Bennett Schiff

A line as clear and tensile as a lightning flash

But brilliant though his art was, Modigliani didn't know how to turn down the heat; he blazed through Paris and was gone too soon

Modigliani–seen here in his mid-20s before ill health, drugs and liquor ravaged him–worked quickly, with confidence, as in *Madam Pompadour*, 1915 (opposite).

The photograph is of a young man so lost, so weary, so disillusioned and soul-stricken that it might have been painted by Rembrandt. It is of the artist Amedeo Modigliani taken in 1920, the year of his death, at age 35.

There is another photograph taken on his arrival in Paris just 14 years earlier. It is so noble of face and bearing it looks mythologized, an Apollo. It could have been painted by Raphael. In those brief years separating arrival and departure, Paris boiled in a creative fermentation to which the young artist added his considerable bit even as it engulfed and, eventually, destroyed him.

A lost life, thrown away, you say, and you are right. But when you consider the work he did in that short span, which took in his entire professional life–the sculpture; the portraits, which are an art movement of their own; the drawings, which are motion frozen; and the nudes, some of which rank with those of Giorgione, Titian, Ingres, Velásquez, Manet and Renoir–you have to conclude that it was a fully realized life as well.

He had come to Paris from Livorno, Italy, a blazing young trained artist of undeniable talent and iridescent personality. He quickly became known in a city that was bursting with the work of remarkable painters, sculptors, poets, writers and composers.

In painting and sculpture in those dizzying times, Picasso and Braque were already engaged in making early Cubist masterpieces. Matisse, the only artist who could make Picasso nervous, had already stunned the art world with Fauvist bombshells. Brancusi, the Romanian peasant who produced some of the world's most sophisticated and direct expressions of three-dimensional structure, was just beginning. The sculptor Jacques Lipchitz was there, and Jacob Epstein came from England to look around. Monet, Renoir, Rodin and Degas, among the elder generation of masters, were alive still and at work.

Although well known and highly regarded by many of them, over time Modigliani came to be seen as a sort of mendicant, a peddler in the streets of his wares, which could be had, when anyone wanted them, for a few dollars for a painting and pennies for a drawing. He was generous too, if he liked you, in handing out his drawings, which he accomplished with mercurial speed, for no charge at all.

His star began to rise almost as he was lowered into the grave. Collectors, dealers, critics, tradesmen who had taken paintings for food and clothing suddenly remembered what had happened after Van Gogh's death. They were well aware of the prices being paid for the

Art Institute of Chicago

work of the Impressionists, who had gone hungry until they caught on not that many years before.

In time Modigliani became one of the most popular artists of the century. The founder of no school, an artist of worldwide prominence, he has had no discernible followers, other than an entire school of counterfeiters of his work. There are many more "Modiglianis"–drawings and paintings–in the world today than there were while he lived.

The fact and the fiction of his short, dissolute and brilliant life have been one of the century's knottiest artistic puzzles. It is probable that no artist of the century has had more nonsense written about him. There is a huge bibliography of books, monographs and articles on him. His daughter, Jeanne, trying to set the record straight, counted almost 400 titles when she set out, in the mid-1950s, to write a book on the father she had never known. There has been the obligatory, romanticized film. And, there is perhaps the ultimate ironic accolade–that busy claque of counterfeiters.

But as more becomes known, a clearer image of the man and his art begins to come into focus. Now, some 400 drawings from his hand, hidden from view since his untimely death in 1920, are being unveiled in favored venues in Europe, the United States and the Far East. For the next two years–until February 1996–it is certain that the excitement the exhibition has engendered in Venice and in London, where it now is, will arise in Cologne, Bruges, Tokyo, Mexico City, Luxembourg, Montreal, Madrid and Rouen. Negotiations are under way for a final stop in New York.

All over Venice, from September until early this month, blood-red banners hung from bridges emblazoned with his name. Modigliani would have liked that. He could only have hoped, while he lived, for that kind of recognition. Some popular regard, other than from a few friends and contemporaries–given what seems to have been his hunger for attention while seeming to despise it–might have kept him from destroying himself. It would have had to have come early, because as time passed the pace of his physical destruction intensified as his art, many would say, got even better.

He was, from childhood, not that strong physically. And according to many witnesses and contemporary commentators, his steady intake of alcohol, including the soon-to-be-outlawed absinthe, and hashish, which could be bought as easily as tobacco, sped him along. It was common enough in those days to have a little pocket hashish box in which the pellets of the drug were kept for easy access, since they were not smoked but popped like cough drops.

Bennett Schiff, former art editor of SMITHSONIAN, *wrote most recently about artists René Magritte in September 1992 and George Bellows in June 1992.*

Museum of Modern Art

Modigliani's distinctive style is characterized by strong, lyrical lines. The sumptuous *Reclining Nude* (above), from 1919, is one of his best-known works.

Both: Collection of Paul Alexandre

The two drawings below are among the 400 drawings that are now in a traveling exhibition; collected by Paul Alexandre, they came to light only recently.

There was a streak of desperation in Modigliani that might have had something to do with the thread of delicately balanced emotional instability that, according to his mother, ran in the family. And, maybe, it was not so simple. Someone so sensitive as the writer John Cheever, while being interviewed for an article in the *New Yorker* magazine, said about himself: "We short men have to make ourselves noticed." Modigliani was just 5 feet 3 inches tall according to one account, and less than 5 feet 5 inches according to another.

There is more to Modigliani than his curiously poised ovoid nudes, which are probably his best-known works. That is not at all to say that one should, or is able to, casually pass by the late, large, stretched-out nudes, some 20 of them painted in the last years of his life. All great painters of nudes distort them, and Modigliani distorted them in his own innovative and creative way. "There is no excellent beauty," said the philosopher Francis Bacon, "that hath not some strangeness in the proportion."

The women are magnetizing–and more

In fact, many of Modigliani's nudes are anatomical freaks. If you analyze them along their central axes, dividing realistically the upper body from the lower, you can see the distortion. The effect is immediate and commanding. The women are, to put it simply, magnetizing. And, they are more. They contain what Kenneth Clark, in his definitive book on the subject, *The Nude: A Study in Ideal Form,* says they must contain if they are to be considered art.

"It is necessary," Clark wrote, "to labor the obvious and say that no nude, however abstract, should fail to arouse in the spectator some vestige of erotic feeling, even though it be only the faintest shadow–and if it does not do so, it is bad art and false morals." The nude also contains other forms of delight, he informs us, including "harmony, energy, ecstasy, humility and pathos." In short, he says, "the nude as a means of expression is of universal and eternal value." There is another factor, too–the creative spirit, that very thing which makes an artist an artist, the need to make a shape that is "an end in itself." In this light, Modigliani shines, working within the boundaries of the canvas or page, creating harmonies relating each section to another, achieving a totality of vision.

There are his portraits, some 75 of them. In the best of them he works the entire canvas. There are no clear colors; there is, instead, a subtle modulation of tone upon tone that energizes the canvas, lends it an all-over pulse beat. It is his inheritance from Cézanne. The color range–sedate blues, greens, rouges and ochres–is limited, but there is the identifying pulsating energy of the entire canvas, a network of tiny forces playing against one another, which was the electrifying discovery of

Private collection

Portrait of Blaise Cendrars, of one of the artist's drinking companions, was completed in only three hours.

Art Institute of Chicago

Modigliani charged "ten francs and a little alcohol" to paint sculptor Jacques Lipchitz and his wife, Berthe.

Cézanne, his gift to the autonomy of plastic expression.

A Modigliani portrait emerges as a geometric harmony of ovals and columns, ellipsoids and spheres that are the underlying structure of the heads and torsos of his subjects. There are columnar necks, long blades of noses, eyes that are like little pools of light and others that are just smudge marks.

A supreme decorator and designer of space, Modigliani presents endless nuances of mood and moment. These are usually sober, melancholic, wistful, evocative, quiet. It is this exactly, this quietness, that qualifies his subjects–as different as they are.

He carried a sketch pad everywhere

He was also an outstanding sculptor who worked directly in stone. His carved heads (p. 70) attest to his close scrutiny of the sculpture of many cultures, from early Greek and Cycladic to African and Khmer. Modigliani was fascinated, in all of these works, with the way that facial elements had been broken down into fundamental forms, such as ovals and intersecting arcs. The insights he gained from creating his sculptures, which he worked at obsessively from 1910 to 1914, were pivotal in his artistic development. Eventually, after producing only several dozen of them, he returned to painting exclusively.

And there are the drawings by the hundreds, fluent, graceful and direct, the line as tensile and clear as a lightning flash. For most of his adult life, Modigliani never moved without a sketch pad and pen, pencil or crayon in hand.

Many of the drawings in the exhibition that is now touring were gathered during Modigliani's first half-dozen years in Paris by Paul Alexandre, a young doctor who steadfastly admired his work. At that time Modigliani was interested in sculpture, so a large number are sculptor's drawings, blocking out volumes and planes. They are impersonal, objective studies, a taxonomic series, scientific in their objectivity. The pencil or crayon is used as a tool of precision. But the lines themselves are so fluid that you want to, and do, trace them with your hand in the air, from a swoop to a simple arc.

Of landscapes he seems to have painted only five. And just one self-portrait.

It is not the art of Modigliani that is in question; it is his life. And the problem is that there have been too many answers. One thing however, is certain: no matter how dissipated he may have been at times, at other times he had to have the control, the intelligence and the feeling to make the fine works of art he did. He did not dash off masterpieces while soaked in absinthe, dazed with hashish. No artist has been able to do that except in the feverish works of fantasists. Since many of them were poets, novelists and journalists, he was fair

game for their embellishments, and what emerged was a kind of opera.

He was born in Livorno, Italy, to a middle-class, educated and cultivated family of Sephardic Italian Jews on July 12, 1884. The Modiglianis, his mother recalled, tall, healthy, were "more inclined to enjoy life than to strain their intellects. . . . The Garsins [his mother's family]. . . showed very different physical and intellectual traits: . . .dark, with very alert, expressive, changeable faces. There had been a few cases of tuberculosis. . .and some psychological disorders. . . ."

There were three older children: Emanuele, who became a prominent politician, a member of the national legislature, Margherita and Umberto. There had been some financial setbacks and the household also contained, from the mother's side of the family, two aunts, an uncle and grandfather Isaac Garsin, a cultivated man who spoke four languages and who was to become the young Modigliani's companion and mentor.

It was an intellectual household. Modigliani was introduced to Dante, Leopardi, Petrarch. He learned large sections of Baudelaire by heart. Later he was to saturate himself in the decadent verse of Lautréamont's "Les Chants de Maldoror." Modigliani's mother, Eugenia, fluent in French, opened a school for young girls. Modigliani, who was not to enter formal school until he was 10, attended her school; he was much at home and very well received by the student body.

Amedeo, a moody, hot-tempered youngster, wasn't much interested in regular school, and in his early teens he entered a local art academy. For two years, wrote Eugenia Modigliani, he worked at his art and hung around with a group of students who "smoked too many cigarettes and were given premature initiation by willing chambermaids."

The great museums, and finally, Paris

In 1900, when he was 16, Modigliani suffered a severe illness, thought to have been tuberculosis. After his long convalescence, his mother took him on a trip to Naples, Amalfi, Capri, Rome and Florence; the young artist immersed himself in the museums of the great cities and the girls of the grand resorts. After that, Livorno had little appeal for him and soon, supported by a stipend from home, he was off to Florence to study, and then on to classes in Venice. Paris was the next, inevitable step.

He gave up his sedate, dandyish style of dress appropriate to young Italian sophisticates and changed to clothing that displayed his sense of color, design and texture: for example, rust-colored, wide-ribbed corduroy jacket and trousers, yellow cretonne shirt, scarlet scarf with a matching band around his waist. On top, a broad-brimmed black hat.

Collection of Paul Alexandre

The Woman with a Beauty Spot, in black crayon and watercolor, dates from the artist's first year in Paris.

Galeria d'Arte Moderna, Milano

Paul Guillaume was Modigliani's dealer, and almost only buyer, until 1916, the year of this portrait.

National Gallery of Art, Washington

In sculptures such as *Head of a Woman* from about 1910, Modigliani worked out crucial issues of form.

In 1907, only a year after coming to Paris, he showed seven works at the Salon d'Automne. At about this time he met Paul Alexandre, who had set up a kind of artists' commune in a house he had rented. Today, it is Alexandre's son, Noël, who has made possible the exhibition of Modigliani's drawings and who has published a magnificent, fully documented book to accompany it.

According to Noël Alexandre, Modigliani–at least until 1914, when Paul Alexandre went to war–was "not the miserable pessimist with a morbid temperament, that so many deluded specialists, experts, critics and filmmakers have foisted on the public. On the contrary, Modigliani never doubted his own worth or his imminent success. He loved life passionately despite all material difficulties and . . . looked for fulfillment in the total dedication to the vocation that drove him compulsively to paint and to paint in joy."

But in her book, Modigliani's daughter, Jeanne, mentions the strain of neurosis in the family, citing the times he "burst out with aggressive and violent bitterness that even his addiction to drink and drugs does not adequately explain."

Sources are difficult, she notes. "The eyewitnesses, taken all in all, can be divided into three categories. There are the indulgent sentimentalists who melt as they tell of the handsome and elegant young man, so lordly, so cultivated and so exquisitely kindhearted. There are the intolerant for whom the artist does not excuse the unbearable buffoon . . . the boring, drunken spoilsport. Finally, there are the self-centered, for whom Modigliani is only an excuse to recall their own youth."

We do know that he was frequently without money. He drank heavily. He took drugs, chiefly hashish in its cheapest form–those undoctored green pellets. He worked steadily, and we know how well he worked. He moved from Montmartre on the hill to Montparnasse on the boulevards. He knew everyone. They all knew him. He was inordinately attractive to women, and he liked them too.

"I was to hear a great deal of him"

In 1910 he had a brief affair with the great Russian poet Anna Akhmatova; many years later she wrote, "He seemed to me to be encircled by a girdle of loneliness." Akhmatova and Modigliani had a great deal in common: Baudelaire and Verlaine; Laforgue and Mallarmé; Paris beneath an umbrella in the summer rain; the Louvre where, surveying the Venus de Milo, Modigliani pointed out to Akhmatova that "women with beautiful figures who were worth modeling or drawing always seemed unshapely when clothed." She often thought, "even then," she wrote, "that he clearly saw the world through different eyes to ours. . . . For a long time I thought I would never hear anything from him again. . . . But I was to hear a great deal of him. . . ."

The writer Blaise Cendrars recalled many drunken escapades with Modigliani during one of which "Modi," as he was known in Paris, tried unsuccessfully to walk on the Seine. The one-armed Cendrars, equally under the weather (and soon, the water) jumped in after him; a boatman managed to pull them both out. "He painted my portrait," Cendrars wrote of his friend, "as if he were sketching, very quickly. It took him about three hours, and between brushstrokes he recited poetry by Dante and Baudelaire."

The sculptor Jacques Lipchitz also recalled being painted by Modigliani with his wife in a double portrait in 1916 (p. 68). "'My price is ten francs a sitting and a little alcohol, you know,' he replied when I asked him to do it. He came the next day and made a lot of preliminary drawings, one right after the other, with tremendous speed and precision. . . . The following day at one o'clock Modigliani came with an old canvas and his box of painting materials. . . . I see him so clearly even now–sitting in front of his canvas, which he had put on a chair, working quietly, interrupting only now and then

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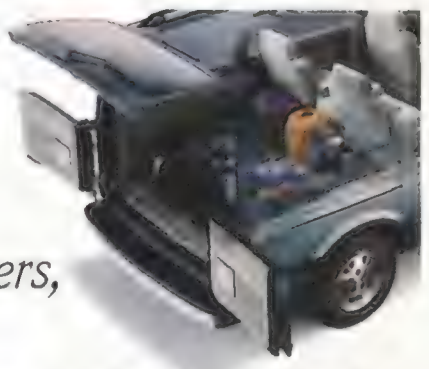

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to take a gulp of alcohol. . . . By the end of the day he said, 'Well, I guess it's finished.'"

Lipchitz, wanting Modigliani to have more than ten francs for the job, asked him to continue. "Well," Modigliani replied, "if you want me to spoil it, I can continue." Which he did, for two weeks. The portrait is now in the collection of the Art Institute of Chicago.

The famous model Kiki, a louche character who lived for some years with Man Ray, remembered Modigliani as a man capable of giving trouble. "All he did was growl," she wrote; "he used to make me shiver from head to foot. But wasn't he gorgeous!"

And Beatrice Hastings, the sharp-witted, acerbic South African writer, who was the correspondent in Paris for a London literary journal–and who had an affair with Modigliani for two tempestuous years–remembered meeting him this way: "I sat opposite him. Hashish and brandy. Not at all impressed. Didn't know who he was. He looked ugly, ferocious, greedy. Met him again at the café Rotonde. He was shaved and charming. Raised his cap with a pretty gesture, blushed to his eyes and asked me to come see his work." Very soon she was "quite shook on the pale and ravishing villain." Soon, they were involved with each other.

It was a turbulent household. "Once," she wrote, "we had a royal battle, ten times up and down the house, he armed with a pot and me with a long straw brush." And she added, "How happy I was, up in that cottage on the Butte." Modigliani painted many portraits of Hastings, and she is believed to have been the model for his 1915 painting *Madam Pompadour* (p. 65).

He wasn't physically strong. Jeanne Modigliani says he was "wasted by tuberculosis, his nervous system had been delicate since childhood, when he would alternate between shy reserve and abnormally high spirits or violent tempers, and stimulants and drugs produced rapid and irreparable changes in both body and mind." Perhaps he was just racing against time, trying to get things done, desperately inching ahead.

Most of his admirers were fellow artists and writers who had no money to buy paintings. Among them was exiled Polish poet Léopold Zborowski, who became his dealer. Through years of hard work Zborowski was beginning to get him across, when Modigliani died.

The only one-man show he was ever to have in his life, at the Berthe Weill Gallery in 1917, was closed by police on its opening night because passers-by complained about the nudes in the window, declaring them to be a public outrage.

In the spring of that year, when he was 32, Modigliani met Jeanne Hébuterne, a waiflike, 19-year-old art student. She had reddish hair and a pale complexion, a combination that caused her friends to nickname her "Coconut." Her swanlike neck is now well known through Modigliani's many portraits of her.

The couple moved from hotel to hotel until Zborowski found them a little studio. Hébuterne, who designed her own fanciful clothing and played Bach on the violin, was almost hypnotically devoted to Modigliani. On occasion, when she went out to the bars to find him, he was less than gentle with her.

By 1918 Modigliani's health was seriously deteriorating. He, Jeanne, her mother, Zborowski and his wife went south to Nice. There, their daughter Jeanne, who would eventually be brought up by his mother and sister in Livorno and Florence, was born.

In Paris that year, dealer Paul Guillaume gave an exhibition consisting of Picasso, Matisse and Modigliani. The following year Modigliani showed four paintings at the Salon d'Automne and received his first review in a Geneva newspaper. Zborowski sold several of his paintings. Maybe he was beginning to catch on, at last.

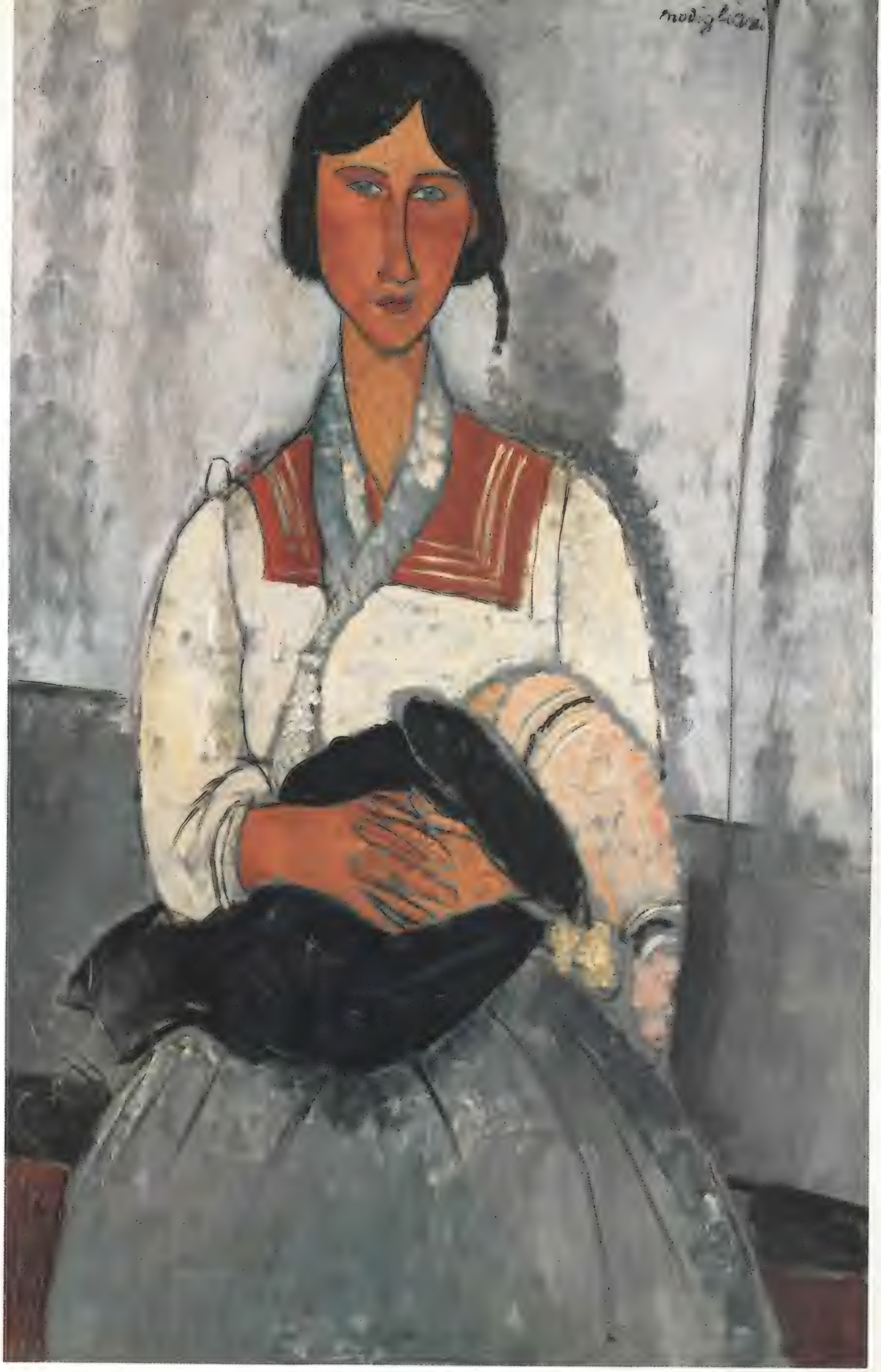
Early the next year, on the 22d of January 1920, Modigliani was admitted to the Charité hospital in a coma. He died of tubercular meningitis on the 24th without regaining consciousness.

That morning Jeanne, in the eighth month of her second pregnancy, came to view the body. Numb, she backed slowly out of the room. She was taken to her parents' home on the fifth floor of an apartment building. The next morning, she plunged from her bedroom window to her death.

It was several years later that Jeanne Hébuterne's father would permit her body to be exhumed and buried beside Modigliani's at the Père Lachaise cemetery in Paris. By that time the artist had arrived. The legend was already well under way.

Gypsy Woman with a Baby, painted two years before his death, bespeaks Modigliani's lyricism at its best.

National Gallery of Art, Washington



By Claude Stanush

'Every time a bank was robbed, they thought it was us'

The Newton Boys were only 'businessmen'; reluctant recipients of their attention– 60 banks, six trains–had another word for it

"That book was wrong about us. There was a gun battle at Toronto, but we wasn't gunfighters and we wasn't thugs like Bonnie and Clyde. All we wanted was the money. We was just businessmen like doctors and lawyers and storekeepers. Robbin' banks and trains was our business." Willis Newton's voice shrilled as he took exception to a book that had described the Newton Boys–Willis and his three brothers–as "daring and desperate outlaws who had engaged in many gun battles with the law."

Willis kept right on: "And the only reason we carried guns at all was to protect ourselves. When we went on a job I told the boys, 'If you have to shoot, don't shoot to kill.' In fact, we loaded our guns with birdshot a lot of times to make sure we didn't kill nobody. We never did."

The most successful bank and train robbers in American history, the Newton Boys still have not made it into the pantheon of famous outlaws, despite their having robbed more than 60 banks and six trains in four years as a team (Willis had hit up another 20 banks). Their career culminated with the biggest train robbery in U.S. history at Rondout, Illinois, on June 12, 1924. By their own accounting, they made off with more loot in those four years "than Jesse and Frank James, the Dalton Boys, Butch Cassidy and all the other famous outlaw gangs put

Willis Newton, followed by Jess, sticks up engineer of locomotive in biggest train robbery in U.S. history.

Illustrations by Bob Crofut

Although a loyal accomplice in brothers' burglary escapades, Joe Newton far preferred busting broncs.

together." At Rondout alone, their take was more than $3 million in cash, negotiable bonds and diamonds.

Why, then, aren't the Newtons better known? If they had been killers like Bonnie and Clyde, they would be. (At a mention of Bonnie and Clyde, Willis snorted in disgust. "Silly kids. Didn't rob nothin' except fillin' stations and small places like that. Spoilin' for a fight with the laws. Sooner or later they was bound to get theirselves killed.") Except for a few jobs, the Newtons were so efficient in their operations that they outfoxed law officers from Texas to Canada. Because they had broken the law in so many states, for decades they refused to admit anything for fear of prosecution. A rancher friend introduced us, and until I talked to them, they had kept most of their secrets to themselves. If robbing banks and trains was all the Newtons had to tell me, I don't think I would have become so interested. But they had a sense of nature and of history and of the part they and their ancestors had played.

Why had such obviously intelligent people turned to lives of crime? The Russian novelist Dostoyevsky said that if you wanted to know about crime, you had to know what was in the criminal's mind. The Newton brothers seemed willing to unmask themselves. Eventually, David Middleton, an English professor at Trinity University in San Antonio who was as intrigued by Willis and Joe as I, joined me in making 35 tapes of conversations with them, and later, a documentary film.

Their objectives were strictly business

The Newton Boys–Willis, Jess, Dock and Joe–came from a colorful but law-abiding family with deep Texas roots. When I first met Willis, the organizer and spark plug of the gang, and Joe, its youngest member, in their hometown of Uvalde, they had long since retired from robbing banks and trains. Willis was 84, Joe 72. It was 1973.

They were the only two Newtons left to tell their story. Neither looked or talked like a hardened criminal. Willis dressed like the businessman he claimed to be, in a neat suit with a white shirt and a tie, and a sporty, narrow-brimmed hat; a dude hat, Joe called it. Joe still wore the clothes of the cowboy he once was, except that his checkered shirt, gabardine pants, well-oiled boots and Western hat were all first-class.

The brothers explained that their objectives had been those of any smart businessmen: minimize risks, maximize profits. They worked mostly at night "by the light of the moon" and in cold weather, when people were apt to be in bed or at home keeping warm. And in late autumn, after the harvest, when banks in rural areas and small towns were flush with cash. If the Newtons saw police in the vicinity as they approached a bank, they would simply keep on driving. "Better to say 'There he goes' than 'Here he lies,'" said Willis, with a grin.

Even so, their business sounded high-risk to me: get into the bank, blow the door off the safe with nitroglycerin–known as "grease" because of its consistency–grab the money and make a quick getaway. Just carrying nitroglycerin around in a fruit jar, as they did, was extremely dangerous: if it had dropped, or even been given a heavy jolt, the four brothers and everything around them would have been blown to smithereens.

The odds of any of the Newtons reaching a ripe old age were not very good. And yet here were two of them, one an octogenarian and the other in his 70s, regaling me with stories and punctuating the tales with knee-slapping laughter.

I had talked to other outlaws during my years as a journalist, and I'd read about Western badmen since I was a kid, but the Newton Boys were unique. After our first meeting in Uvalde, they came to visit me at a Texas Hill Country ranch where my family and I were living. Willis drove up in a wide, shiny Buick and presented us with a large bottle of Uvalde's famous *huajilla* honey. Joe came in his pickup, pulling a trailer with Old Paint, a tall, raw-boned, Roman-nosed horse he usually took with him wherever he went. Old Paint bucked a little, but Joe said he wouldn't have a horse that didn't buck.

They stayed a week; we talked and talked. Having grown up on West Texas farms under harsh conditions, both had a knowledge of the natural world like few other people I had known. Of deer and birds, snakes and locusts, of cyclones, and droughts that caused cracks in the earth wide and deep enough for a cow to fall into. One day Joe suddenly dropped to the ground to skylight a bee that had just risen, straight up like a helicopter, from a wildflower. By silhouetting it against the sky, Joe could tell the location of its hive as it made a beeline for home. Soon, riding Old Paint, Joe found the hive, loaded with honey, in a cave in a nearby limestone bluff.

"Lots of things been written about us," Joe said, "but none ever told the real story. Like some people who claimed to be eyewitnesses and swore they saw eight or ten men when they actually saw maybe one or two. Or the banks that claimed we took $25,000 when maybe we took $15,000. We had a suspicion they claimed that to collect more insurance."

They had phenomenal memories of banks and trains they had robbed, the dates and how much they got each time. On details they were generally in agreement. But just as each dressed differently, Willis and Joe were individual personalities with individual judgments about what they had done. Willis was still unrepentant. Joe, on the other hand, confessed that when he exchanged saddle and spurs for a gun, it was the biggest mistake of his life. "He woulda made a good Baptist," said Willis.

Speaking of their father, Jim Newton, Willis said, "Everybody thought Pa was a good man, but nobody could ever figger out what he was good for."

Their mother, Janetta Pecos Newton, did the best she could raising 11 children. Without a sewing machine and with only $10 each fall to provide clothes for the whole family, she bought cloth and sewed all the clothes "on her fingers."

Pa Newton seemed always to have work for the kids to do, so Willis was 12 before he could go to school. He covered three grades in a few months. But when the seat of his pants unraveled, he quit, too ashamed to go to school with a patch on his bottom. His teacher begged Ma Newton to send Willis back: "He's the smartest pupil I ever had. If you give him an education, there's no telling what he will do. And if you don't give him an education, there's no telling what he will do."

The first Newton boy to get into serious trouble with the law was Dock. Told by his father to take a wagon with

Unable to find a door when henchman ran off with light, Willis saved his life by leaping atop safe as it blew.

A former Life *correspondent and newspaper columnist, Claude Stanush is coproducer of an award-winning documentary about the Newton Boys' nefarious career.*

600 pounds of cotton into the town of Rising Star, Dock stopped at a gin in the middle of the night and "borrowed" another few hundred pounds to top off his load. Willis, accused along with Dock, swore he had spent the night in a hotel in town. Both were convicted and sentenced to two years in the penitentiary. There, Dock knocked a guard off his horse and let more than a hundred prisoners, including himself, escape. Other breakout attempts pushed Dock's sentence to ten years.

At Willis' request, Ma Newton visited Governor O. B. Colquitt. Separated from Pa, she told the governor, "I'm a widow woman and need Willis to pick my cotton." Colquitt, persuaded by her plea, granted a pardon.

The code of the West: don't bother women

Out of prison, Willis took the only way he knew to make a living: the onerous, backbreaking work of picking cotton from sunup to sundown. But in prison he had heard of another, easier way of making money. One day he said to a fellow cotton picker, half jokingly, "Let's rob a train." The other responded, "Let's."

On the last day of December 1914, with stolen guns and their faces covered with the lining ripped from their overcoats, Willis and his friend jumped onto the rear of a train when it stopped for water at Cline, about 30 miles west of Uvalde. They opened the curtains of berths in the Pullman car, and took cash and watches off the male occupants. Following the code of the West, they didn't bother women. Then they made the conductor stop the train and jumped off. They counted $4,700 in cash, more money than either had ever seen.

But that "easier way of making money" had its lumps, too. Arrested for selling stolen clothes, something he admitted, Willis was sent back to prison for another two-year hitch. Determined to get out without taking the risk of an escape, he concocted a clever scheme. He wrote the judge and sheriff of the county from which he had been sentenced, asking them to support him in petitioning Gov. William Hobby for a pardon. They declined in no uncertain terms. But Willis now had their signatures. For a bit of cash, he hired a fellow prisoner, a master forger, to draw up a petition to the Board of Pardons, reproducing the signatures of judge and sheriff, and adding the signatures of 60 or so fellow prisoners as if they were prominent county citizens. The signatures on the petition were never checked, and Willis was granted a pardon on condition he serve at least one year.

Upon his second release from prison, Willis had his mind set on even bigger goals: robbing banks. "Some of them banks out in West Texas didn't care about hurtin' us poor farmers, so why should I care about hurtin' them? And when I heard that all of them was covered by insurance, that cinched it. Them companies would tell people anything to sell 'em a policy, and then when somethin' happened, just try to collect. They was the biggest liars and thieves in the world. So it would be just one thief robbin' from another thief, a bigger one."

Toronto clearinghouse guards shoot at Boys' stolen getaway car as they flee with $80,000 in daytime heist.

In Oklahoma, Willis was told, if you got caught in something illegal, you could slip the officer a little money and he'd let you go. So up to Oklahoma.

Several partnerships with other ex-convicts didn't work out. It was the character of his associates: too much drink, too much blabbering, patronizing prostitutes who might squeal to police, general unreliability, trigger fingers. Willis had to find responsible accomplices. He thought of his brothers, Joe, Dock and Jess.

Setting up headquarters in Tulsa, Willis wrote to Joe, sending him two twenty-dollar bills and telling him nothing more than that he had a job for him. Joe, who loved horses, had his own business–busting broncs for ranchers at $5 a head. Thinking Willis meant bronc-busting, Joe stuffed his saddle and spurs into a gunnysack and took the train to Tulsa. Willis met him at the depot. Noting Joe had brought his gear, he laughed.

After a wild ride through downtown traffic, narrowly avoiding capture, they parked and took in a movie.

"Yeah, I got a job for you, but it ain't that kind of a job."

After Joe joined him, Willis wrote his mother to send Dock. If he wasn't still in prison. He wasn't. Having finally learned how to escape successfully, he was in Uvalde. It took little persuasion to get him to Tulsa.

Then there was Jess. "As a kid, Jess was a big ol' larrupin', lazy boy," Willis said. "The old man would whup him for not hoein' his cotton good, and he'd go right back, cut out the cotton, save the weeds." Jess' real love, like Joe's, was horses; he was known throughout Texas for his skill as a bronc-buster. When Jess finally agreed to join his brothers in Tulsa, Willis had the partners he needed.

The combination of brother partners and Willis' formula for robbing banks and trains worked. The formula was based partly on using modern technology–the fastest, sturdiest cars available–and partly on what we would today call systems analysis. The brothers, Willis mostly, were continuously studying bank operations, law enforcement patterns, security, telephone and telegraph and criminal justice systems, and most important, systems of demolition.

By the 1920s, most banks in big cities had gone to safes with round doors so snug that nitro could not be forced into them, and so were virtually unblowable. Most small towns, though, still had square or rectangular safes into whose cracks nitro could be poured. Detonated with a dynamite cap, the door would literally peel off.

But if not enough nitro was used, the door would "hang up." At a bank in San Marcos, Willis put in several extra ounces of nitro to make sure the heavy door would come off. The resulting explosion not only blew off the door but the whole front of the bank. Money was scattered to the other side of the street. The next year, besieged by angry bankers from all over the state, the Texas Legislature passed a heavy explosives law, mandating a prison sentence of 12 years.

Two towns: two banks, one night

Some small towns had night guards, usually older men easily surprised and tied up or held at gunpoint. "I talked rough as I could to anybody who got in the way," Willis said. "That usually scared 'em enough that they wouldn't put up a fight and get somebody hurt."

In Hondo, Texas, and Spencer, Indiana, the Newtons felt so confident that in each town they blew the safes in two different banks on the same night.

An Arctic-like norther had whipped into Hondo, and the marshal sat in the railroad depot drinking coffee. The gang blew the safe in one bank down the block, then calmly walked around the corner to blow a second one on the main street. In Spencer, Dock was posted as lookout. Just as Willis was preparing to blow a safe, Joe was getting ready in a second bank a block away. A lone citizen kept walking along despite Dock's warning to head off in another direction. Dock later told his brothers, "The ol' boy was just about in front of Willis' bank when–BOOM!–the windows blew, and he jumped up about two feet and went a-flyin' down the street toward Joe's bank. You could hear his feet poppin' the pavement. Then, just about when he got in front of Joe's bank–BOOM!–there went Joe's shot. The ol' boy turned around and came a-flyin' back toward Willis' bank. He just about got there when–BOOM!–there went Willis' second shot. The fellow let out a yell and kept goin'."

Willis had had to put in a second shot because the safe door, a thick, heavy one, only cracked with the first. The double dose of nitro sent the door flying off. It landed on the wooden floor with such force that it went right on through into the basement.

Since the Newtons did most of their jobs in the fall and winter, Willis used the summers to drive around the country–almost anywhere west of the Mississippi–to scout blowable banks. His three brothers could take va-

cations and, being avid baseball fans, usually spent their summers in Kansas City, or in Chicago where they could watch their favorite team, the White Sox.

With everything planned carefully, the Newtons had no trouble burglarizing one bank after another in season: $40,000 in the Spencer break-ins; $6,000 in Deer Trail, Colorado; $8,000 in Moosomin, Saskatchewan. But they also pulled off some more-daring, more-dangerous stick-'em-up robberies. In New Braunfels, Texas, at high noon, wearing no masks, they held up the cashiers at gunpoint, forcing them, a former Texas ranger and several customers to lie on the floor, "heads to tails," Willis said, while the Boys made off with $104,000. In a suburb of Chicago they got $25,000 to $35,000 from a mail truck.

Exchanging diamonds for freedom

What did they do with the money? "We lived well," said Joe. They ate the best food, wore tailor-made suits and diamond rings and stickpins, stopped at the best hotels, drove the biggest, sleekest cars.

The diamond rings and stickpins weren't just for show. It didn't take the Newtons long to find out that police are corruptible just like other people. Several times they exchanged diamonds for freedom.

Usually the Boys went by assumed names, and if anybody asked their business they said they were Texas oilmen. In certain situations, their names and occupations could change fast. In Terre Haute, Indiana, they took in an Elks carnival that was raising money for charity. In one concession the police would "arrest" and "jail" a person until the "culprit" paid a stiff fine. When Willis was "arrested" and questioned by the police as to his name, what work he did, and what he was doing in Terre Haute, in a flash he had a new name and had changed from a Texas oilman into a Chicago businessman. Next day the local newspaper reported one of the people "arrested" at the carnival was a "prominent Chicago businessman in town on a big business deal."

In Des Moines, Willis met a pretty department store clerk, a widow with a small son. After he'd taken her out a few times, they got married. Unfortunately, Willis had neglected to tell her he was a bank robber. When she found out, she asked for a divorce. By that time, however, her young son had become so fond of Willis he begged his mother not to leave his new daddy. Finally she agreed, telling Willis, "If my son wants you, I guess that's good enough for me."

Several times, Joe thought of giving up busting banks, which he didn't really enjoy, and going back to busting broncs. On the other hand, he did enjoy the money. "When you're 21 years old, got on a hundred-dollar suit, and your pocket's full of cash, it's hard to give it up."

Jess did leave a couple of times to go back to cowboying. Once he joined Booger Red's Wild West Show. Willis found him and brought him back into the fold.

One day in Toronto, Willis saw a number of men, protected by guards, carrying big satchels into the bank clearinghouse. Those satchels had to be stuffed with money, he reasoned. He also decided that if the boys caught the guards and couriers by surprise, they could get the money and get away in relative safety.

He miscalculated. Even with guns trained on them, "those crazy Canucks," as Willis called them, wouldn't give up their satchels; they started shooting. And when the shooting started, people rained boxes and chairs down on the Newtons from the windows of office buildings. Eventually they were able to get ahold of two satchels and make off with $80,000. But two or three Canadians had been wounded, and for a while even Willis had second thoughts about the business.

Those second thoughts didn't last very long. The brothers' train- and bank-busting business might have gone on and on for years if Willis hadn't got a little too ambitious. An ex-convict tipster introduced him to a postal inspector, who told him about a mail train out of Chicago that carried large sums of money, bonds and diamonds. For a share of the loot the inspector would supply the Newtons with all the information they would need to make a successful haul.

Joe was skeptical. "I knew that in all big robberies like that, somethin' always seemed to go wrong." The night before the robbery, in their hotel room, he tried to talk Willis out of it. Willis turned over and went to sleep.

Wearing overalls, swinging railroad lanterns

On the night of June 12, 1924, Joe, Dock and another man who Willis felt was needed traveled in two Cadillacs to where a road crossed the tracks near the small town of Rondout, 30 miles north of Chicago. Willis and Jess, wearing overalls and carrying lanterns like railroad employees, climbed up in the "blinds"–the space behind the locomotive tender–on the Chicago, Milwaukee and St. Paul mail train.

As the train approached Rondout, Willis and Jess climbed over the tender and put pistols on the fireman and engineer. The engineer was so frightened he let the train go past the crossing where the other three men were waiting. Running to catch up with the train, in the confusion the non-Newton member of the team panicked and fired by mistake at Dock. Five bullets struck him.

The other Newtons, unaware of Dock's plight, went about their business. To get the 17 armed clerks out of the main mail car, Willis or Joe broke a window and threw in bottles of formaldehyde, which acts like tear gas. The gasping clerks came out with their hands up. Mail sacks were being loaded into the Cadillacs when Dock was discovered. "That blowed it for us," Willis said.

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Totally inebriated, Jess buried $35,000 of Rondout plunder but couldn't locate his stash the next day.

With Dock bleeding on top of the mail sacks in the backseat of one of the cars, the Newtons drove hell-bent for previously chosen stashes to hide the money. Then they headed for Chicago, where an underworld doctor treated Dock. But certain Chicago gangsters were incensed that some nervy Texas cowboys had invaded their turf. When they got word of Dock's whereabouts, they tipped off the police.

All were arrested except Jess, who took off for Texas with some of the loot. After drinking heavily in a San Antonio bar, Jess decided to bury most of the money. A Mexican taxi driver took him out west of the city where, with a pocketknife, he dug a hole in the ground and deposited $35,000. The next day he decided to retrieve the money and take it to Mexico. But he couldn't remember where he had dug. Neither could the taxi driver: "*Estuve también muy borracho*–I was very drunk too."

With what he had left, Jess went to Piedras Negras, across the Rio Grande from Eagle Pass. There he spent most of his time in cantinas, drinking tequila. Law officers eventually traced him and hatched a plan to get him back to the United States. Knowing that Jess was very proud of his ability to ride bad horses, one undercover officer spent several evenings drinking with him, then handed him the bait. "Hey, Jess," he said, "there's a bronc coming to a rodeo over in Del Rio, and they say nobody can ride him."

"Hell, I can!" exclaimed Jess.

"Here's $500 you can't." Jess took the bait. He put up his $500 and told the officer he would meet him at the rodeo's horse corral. Next day, at the corral, the officer greeted Jess, "You still going to ride that horse?" "You're damn right," retorted Jess. The officer said, "Oh no, you're not," and produced a pair of handcuffs.

"Ain't this a helluva way to make a livin'?"

Though all the Newtons faced stiff prison sentences (the postal inspector got 25 years) they had one trump card: the hidden loot. With the happy approval of the insurance companies, they traded it for light sentences. Willis and Dock got 12 years, Joe only 3 because of his youth. Jess got the lightest sentence–one year–because at the trial the engineer on whom he held a gun during the robbery said he thought Jess was a reluctant accomplice. Jess had commented to him, "Ain't this a helluva way to make a livin'?"

They were all sentenced to Leavenworth, in Kansas. Jess was out in a few months, Joe served a year and a half, Willis, four, and Dock stayed six years.

Ironically, at a later date, both Willis and Joe were sent to the Oklahoma State Penitentiary at McAlester on 20-year sentences for a bank robbery both swore they never committed. Willis said one of the court officials told him, "Maybe you didn't rob this one, Willis, but you robbed others and got away with it." Call it poetic justice, for the Newtons had indeed broken the law many times and got away with a lot of money for lack of evidence–and the ultimate losers were ordinary citizens.

Willis and Joe spent ten years at McAlester, where their time wasn't really all that unpleasant. Their friendliness and wit won over the warden, who soon made them trusties and put them in charge of his fishing lodge and lake. After their release, they found, as Willis said, "every time a bank was robbed, the police thought it was us. It was our reputation."

Eventually, Joe went back to Uvalde, where he married a churchgoing woman and went straight, operating a meat market and gasoline station. For some years Willis ran a nightclub and bootleg operation in Tulsa, before moving back to Uvalde with his wife.

When I first met Willis and Joe, both, in spite of their age, were still very active. Hollywood films were often made at a mock Western village near Uvalde, and Joe would hire out himself and Old Paint as extras. In *The Last Command* (1955), about the fall of the Alamo, Joe, dressed as a Mexican lancer, was seen charging the buckskin-clad defenders of the Texas citadel. In anoth-

er scene, Joe, dressed as a Texan, shoots at himself, the charging Mexican lancer. In parades in Uvalde, astride a sometimes-bucking Old Paint and waving his big cowboy hat, he was always a striking figure. He had become one of the town's best-liked and most-respected citizens.

Willis was still suspect with the locals. Driving his big Buick hell-for-leather down country roads, he still had the idea that Texas should be open-range country. Many ranchers who found locks shot off their gates surmised that Willis had taken a shortcut.

Both brothers raised bees. In years when production was low, they raided wild hives in the hollows of trees along the Nueces River. "I may be too old to rob banks," Willis said, "but I can sure rob beehives." Some neighbors, whose domestic hives disappeared, cast a suspicious eye on Willis.

In 1968, at the age of 77, Dock Newton tried to rob one more bank, at Rowena, Texas, with the help of a rancher friend. While they were inside, a sheriff's posse surrounded the bank. A shootout followed, ending when a lawman bonked Dock over the head with his pistol. A lenient judge put Dock, who was permanently impaired, in a prison hospital for eight months, then let him go to a nursing home. He died in 1974, at 83. Jess had died in 1960, of lung cancer. Willis died in 1979, at 90. Joe, the last of the Newton Boys, in 1989, at 88.

Right up to the end Willis liked to keep people guessing. Shortly before his death I went with him into the First State Bank in Uvalde, where he joshed with tellers while he withdrew a fistful of tens and twenties. On the way out, he whispered to me, "This bank likes me because I never robbed it." Then, like the pragmatic businessman that he was, he added, "I never robbed it because I had to have some place to keep my money."

Dock is at the wheel of a Studebaker touring car, a Newton favorite, while Jess (left), Willis (with rifle) and Joe lounge beside it. Finding shooting necessary now and then, they took pride in never having killed.

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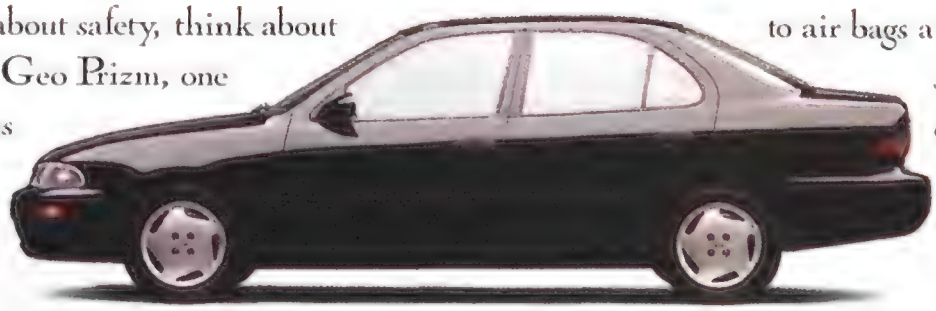

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By Stanley Karnow

Year in, year out, those eateries keep eggrolling along

From tsap seui *to trendy* haute *Chinese, the oldest and most subtle of cuisines is busy civilizing rustic New World palates*

The little Texas town of Alpine is nestled between the Davis Mountains and the Chihuahua Desert, a hard-scrabble region a hundred miles north of the Rio Grande. Its 5,000 residents chiefly depend on cattle ranching, a local college and visitors to nearby Big Bend National Park. The food ranged from steaks and burgers to pizzas and tacos until Tony Ching, a native of Taiwan, arrived to endow Alpine with an institution almost as enduring as America itself–a Chinese restaurant.

Now in his mid-40s, he landed in New York in 1973. He learned to cook while working as a dishwasher in a Chinese restaurant in Columbus, Ohio, and later acquired his own restaurant in Odessa, Texas. Persuaded by Alpine clients to move to their town, a couple of hours away, he rented a former pizzeria after verifying its *feng shui*, "wind [and] water," a concept derived from the Taoist tenet that site determines *yang* and *yin*, the opposing forces that control the cosmos–and, when kept in harmony, assure success (SMITHSONIAN, August 1993). He decorated the interior in traditional Chinese style–red walls for luck, gilded dragon and phoenix carvings to symbolize male and female, inkbrush ideographs to signify happiness, and a tank of live fish to augur abundance. The telephone company generously issued him an auspicious number with 7's and 8's in it–7 for *chi*, "energy," and 8, a Chinese homonym for *ba*, "prosperity." He further appealed to the spirits for good fortune by naming the restaurant the Golden China.

Like many Chinese enterprises, it is a family affair. Ching cooks, his wife, Christine, keeps the ledgers, and their six children pitch in. Once a week he makes the six-hour roundtrip to shop for authentic Chinese ingredients at El Paso's handful of Chinese groceries. Hispanics like his tangy Szechuan and Hunan, gringos prefer such old standards as chow mein, and college kids welcome the bargain supper. Alpine's tranquillity soothes him but, he says, "You can't get rich here."

Tony Ching is not unique. Though Americans of Chinese descent account for less than 1 percent of the population, roughly one-third of the country's estimated 100,000 "ethnic" restaurants are Chinese. They outnumber Italian, Mexican and French restaurants, and those specimens of pseudosophistication lampooned by the epicurean Calvin Trillin as "Chez la Maison de la Casa, Continental Cuisine." Wilbur Zelinsky, a professor of geography at Pennsylvania State University, has labeled their proliferation "cultural transnationalization"–academic jargon for the evolution of America from an insular to a cosmopolitan society.

On the debatable theory that even mediocre Chinese food beats anything else, I have managed to ferret out the odd Chinese restaurant in such farflung corners of the globe as Anguilla, Nairobi and Srinagar. By contrast, Chinese restaurants pervade America. Virtually every town and city has a Jade Lion, Silver Fountain, Lotus Flower, Great Wall, Dynasty House, Yellow Emperor, Ming Garden, Pearl River, Canton Canteen, Szechuan Taste or Hunan Inn–names contrived to summon up exotic images of the Orient. Some have cutesy titles, like the You Won in Rockford, Illinois, or the Chop Stix in Rockville, Maryland. Their numbered menus, which may be printed by a central press, reveal few clues to their fare. Chinese cooks are fiercely individualistic. They seldom resort to recipes; crispy chicken in one place only accidentally resembles crispy chicken in another.

Chinese restaurants vary in size and price from sleazy ghetto takeouts and remote roadside stops to glitzy establishments whose reputations often reflect the elegance of their clientele rather than the quality of their food. The Peking Gourmet was a modest mom-and-pop venture tucked away in a Northern Virginia mini-mall

Modern master Robert Wu, whose family owns Mandarin Palace in Washington, D.C., touches up a fish dish.

Earliest Chinese restaurants, like this one deep in California redwoods, fed miners and railroad workers.

before it was put on the map by President George Bush, a Chinese-food fan ever since his brief stint as U.S. envoy to Beijing. Manhattan celebrities gather at the upscale Shun Lee Palace or the swanky Tse Yang, which one reviewer labeled "*haute* Chinese." The Hollywood elite meet to eat at the Mandarin or at superchef Wolfgang Puck's superchic Chinois on Main in Santa Monica, where the so-called Cal-Asian cuisine includes such items as seaweed and sashimi.

The biggest Chinese restaurant in the United States–perhaps anywhere–is Weylu's, a mammoth structure scanning the Boston skyline from a hillside in Saugus, Massachusetts. It turns out 5,000 meals a day amid a bogus decor of rock gardens and pagodas, designed to emulate in miniature the Forbidden City in Beijing but in fact more akin to an Asian Disneyland. The dishes, remarked a critic for the *Boston Globe* after its grand opening in 1989, ran the gamut from "very good to terrible second rate." "Diversity," the new buzzword, has animated an array of hybrid Chinese restaurants–Mexican, Cuban, Cajun, Italian, French. Chinese from Hawaii and the Pacific insinuate kiwi and pineapple into their dishes. Vietnamese, Cambodian, Laotian, Thai, Indonesian, Malaysian and Burmese Chinese dose their cuisine with curry, coconut, lemon grass and other flavors from their homelands.

Comic Jackie Mason once posed a question worthy of Talmudic inquiry: "Jewish civilization is 6,000 years old and Chinese civilization 4,000 years old, so where did Jews eat on Sunday night for 2,000 years?" Jews are indeed incongruously addicted to Chinese fare despite its heavy doses of shellfish and pork, which violate their dietary laws. The reason, maintains Ken Hom, a Chinese food maven, is that Chinese rarely mix meat and dairy products, another prohibition. Mimi Sheraton, a former *New York Times* food writer, has speculated that a lost tribe of Israel may have gone astray in China. My own guess is that Jewish Americans, like most other Americans, have long been accustomed to hashes like chop suey and egg foo yong, whose components, taboo or acceptable, defy recognition.

Whatever the answer, when I was growing up in a predominantly Jewish neighborhood of Brooklyn, the corner Chinese restaurant was crammed on Sunday evenings with diners who would never have tolerated non-kosher at home. The menu obligingly translated "wonton" as "kreplach," and the place closed only on Yom Kippur. It would have shut for Ramadan had the clientele been Muslim. An option for the truly pious is a few tasty kosher Chinese restaurants–not to be confused with others, like the Genghis Cohen in Los Ange-

In San Francisco in the 1890s, a girl shops for fresh vegetables, a basic ingredient of all Chinese cooking.

In New York's Chinatown today, a market overflows with peppers, eggplant, cucumbers, squash, bok choy.

Stanley Karnow won a Pulitzer Prize for In Their Image, *a book about U.S.-Philippine relations. He is now at work on a book about the Asian experience in America.*

At a portable grill in New York City, a sidewalk chef does up crispy duck according to individual taste.

Increase in Chinese restaurants has led to many more markets for all sorts of plain and fancy seafood.

les, that sport catchy names but deal in equivocal cuisine. Some can be risky. Started in 1988, the Moshe Dragon in Rockville, Maryland, was drawing crowds in yarmulkes–until a sinister rumor circulated suggesting that its kosher duck was dubious. A panel of rabbis was invited to examine the charges, and a *shemozzl* ensued until new owners had their kosher credentials approved. On the other hand, attempts to convert the Chinese to Jewish food have faltered. When I was living in Hong Kong during the 1960s, friends lured me into investing in a New York-style deli. The idea was preposterous, given the superiority of dim sum to stuffed derma, and we went broke. We should have gone into the Oriental restaurant business in America, where the revenues last year totaled $9 billion.

The Chinese food craze has spurred the spread of fast-chow chains all around the country. One, Manchu Wok, already has 200 outlets. Another is Panda Express, founded by 43-year-old Andrew Cherng. Born in China, he came to America to study, earned a degree in math and, undecided on a career, took a job at a relative's Chinese restaurant in Hollywood. He was joined by his parents in 1973 and together they opened a tiny restaurant in Pasadena. Fast food was then sweeping the nation, and President Richard Nixon's dramatic voyage to China the year before had fueled a mania for things Chinese. Parlaying the two fads, Cherng conceived of a Chinese buffet. Now he runs more than 100 in 17 states and envisions 150 more next year. A luncher on the run can grab a combination plate of beef with green peppers, orange chicken and fried rice at the counter and dash to the cashier in one minute flat–all for $4.29.

"Xie xie ni" *means "thank you"*

General Mills, the food conglomerate, has been testing the notion of going nationwide with their China Coast restaurants—they have three in Orlando, Florida. Housed in pagoda-style buildings amid clumps of bamboo, the tables are equipped with computers for ordering such predictables as chow mein, which are prepared in washtub-size woks. While waiting, customers can peruse a glossary of Chinese terms like *nin tsau,* "good morning," or *xie xie ni,* "thank you." An outlet recently opened in Indianapolis and another is scheduled for Dallas. There are bamboos that can survive a hard winter should the chain expand to, say, Duluth.

Meanwhile, the growing numbers of Americans who dabble in Chinese cooking at home have spawned a brisk do-it-yourself business. Publishers are distributing Chinese cookbooks by the score, Chinese chefs strut their skill on television, supermarkets carry Chinese foodstuffs, and hardware stores sell electric woks made in Hong Kong, Taiwan and Japan. The burgeoning industry alarms environmentalists, who fear that the spi-

For decades, classic Chinese restaurants in America looked very much like this one, photographed in 1910.

New-style Chinese restaurants–here, one in Santa Monica–tend to trade in trendy "Cal-Asian" meals.

raling demand for wooden chopsticks will denude the country's forests. But the passion for Chinese cuisine is introducing America to the element in Chinese culture that the Chinese cherish most.

Everyday-Chinese phrases resonate with references to food. "Have you eaten yet?" is a habitual greeting, and having a "broken rice bowl" means losing a job. Richard Solomon, an American authority on China, has perceived the same imagery in Chinese Communist rhetoric. Mao Zedong urged peasants to vent their anger against oppressive landlords by "vomiting the bitter water" of hardship and ordered troops to "devour" the enemy. Exhorting his comrades to sacrifice themselves, Mao intoned, "A revolution is not a dinner party!"

The Shang ruler who founded one of China's early dynasties 4,000 years ago appointed his favorite cook prime minister. A few centuries later, the wok was conceived–an ingenious utensil whose curved sides distribute heat evenly and evaporate liquids quickly. Chinese cuisine reached its peak in the 12th century when the Sung court, retreating from invasions from the north, set up its capital in the southern city of Hangzhou.

There, cooks could import from the nearby coast previously unknown herbs, spices and other edibles. The culinary arts thrived. Nobles and rich merchants held marathon banquets in restaurants embellished with precious objets d'art. Colossal menus bore calligraphed poems exalting dishes with such titles as "Dragon Meets Phoenix" or "Seven Stars Encircle the Moon." On the assumption that fine dishes arouse the libido, restaurants and tea houses were venues for prostitutes. Recollecting Hangzhou, Marco Polo wrote, "So many pleasures may be found that one fancies himself to be in Paradise."

The first recorded Chinese restaurant on U.S. territory was opened in San Francisco in 1849, when the town was a sprawl of tents and shanties lining the bay. Called the Macao and Woosung, it belonged to one Norman Asing, whom a chronicler of the time portrayed as a "cadaverous but keen old fellow" with a queue dangling from under a stovepipe hat. Asing claimed to have been naturalized as an American citizen and baptized as a Christian in Charleston, South Carolina. He spoke passable English and wined and dined the local cops, politicians and journalists–a shrewd strategy that would shield him from the anti-Chinese campaigns of later years.

The gold rush inspired an astute if anonymous Chinese to cater to the hordes trekking through San Francisco on their way to the hills. His prix fixe of one dollar was a steal, and business boomed. Other Chinese started "chow chows" that, like eating places in China, flew triangular yellow flags for identification. Mostly shoestring ventures, they were "cousin partnerships"–a cousin being any relative or friend. Despite tales that rats and other vermin infested the kitchens, clients were unfazed as long as the fare was plentiful and cheap. The dishes were "exceedingly palatable," one miner jotted in his journal, but he was "not curious enough to enquire as to the ingredients."

By the early 1850s, legions of Chinese miners were also pouring into "Gam Saan"–"Golden Mountain"–their appropriate term for California. Working in teams, they would end the day by bathing, washing their clothes, and dining on fish, meat, vegetables, rice and tea prepared by cooks they brought along–a far cry

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from the salt pork and beans consumed by most prospectors. They were provisioned by traveling Chinese traders leading mule carts or carrying bamboo shoulder poles filled with food. As mining camps became towns, and prospectors moved on to Washington, Oregon and Utah in search of gold, Chinese restaurants followed.

The intrepid Chinese laborers who blasted through the Sierras to complete the transcontinental railroad in 1869 (SMITHSONIAN, February 1991) probably owed their prodigious stamina to balanced diets, while Caucasian workers suffered from chronic ailments caused by reliance on bully beef and beans, and were often crippled by hangovers after a night of swilling rotgut whisky; the Chinese drank only tea. Many Chinese suppliers opened restaurants along the rail line–as did some Chinese railroad cooks. In 1910 Yee Hing Gim quit his caboose to start the first restaurant in Mackey, Idaho. Before that the only public eating places were boardinghouses. Today his son Benjamin, a Columbia law school graduate, is a successful New York attorney.

Fortune cookies were invented in America and became big business. Now they are catching on in China.

These pioneers bequeathed America an enduring legacy: chop suey–in Cantonese *tsap seui*, or "sundry scraps." Its genesis is murky. According to one account, a San Francisco cook threw together a batch of leftover meat and vegetables for a group of drunken miners who clattered into his restaurant late one night. Another has it that Li Hong Zhang, a Chinese mandarin who visited New York in 1896, had tsap seui served at a diplomatic banquet at the Waldorf Astoria. An authority on Chinese food, Professor E. N. Anderson, rejects such yarns as spurious. Chop suey came from Toisan, he says, a rural county near Canton and home to most of the Chinese who immigrated here during the 19th century.

Wherever it originated, it rapidly became as American as pie à la mode. During Prohibition chop suey joints fronted for speakeasies and later doubled as nightclubs with Chinese floor shows. Chop suey even boomeranged back to China, where a neon sign over a modish Shanghai restaurant advertised: "Genuine American Chop Suey Served Here." Now disdained by connoisseurs, it is enjoying a renaissance among young Chinese-Americans. As Maxine Chan, a Seattle police officer, explained, "It's an affirmation that we are Chinese-Americans–with an accent on the American." Targeting Hong Kong's young, upwardly mobile, health-conscious Chinese professionals–a class dubbed "chuppies"–Crown Colony restaurateurs have begun opening American subsidiaries that offer new versions of classic Cantonese cuisine. Their chefs even experiment with milk, yogurt and mayonnaise, a radical departure for the Chinese.

After Confucian adages, comic themes

The fortune cookie is indisputably American. It was invented in 1916 by David Jung, a Los Angeles noodle manufacturer, though he borrowed the idea from the practice among ancient Chinese rebels of exchanging covert messages inside buns. Fortune cookies clicked. The counterfeit Confucian adages of the past have long since lost ground to ethnic, comic, even erotic themes. For years China spurned the fortune cookie, but a Brooklyn noodle company recently contracted with a state-owned firm in Canton to build and run a fortune cookie factory there. Messages are to be printed in Chinese and English and, in keeping with China's plunge into free enterprise, will promise wealth.

While Chinese food buffs fret that mass production is debasing Chinese cuisine in the United States, many submit that Chinese restaurants here surpass those in China. The phenomenon chiefly stems from the vast influx of Chinese into America after 1965, when liberal laws lifted the barriers to emigrants from Asia. Before then, Chinese restaurants here were almost always Cantonese–capable of producing their succulent native fare, which they corrupted into a distinctive species billed as

Weylu's, a huge restaurant near Boston, looks like Beijing's Forbidden City. It serves 5,000 meals a day. Here, waiters hold two specialities: the seafood basket (at left) and the moo goo gai pan platter.

"Chinese-American" food to suit the *lo fan*, "barbarians." Within the past 20 years, however, some two million newcomers have brought myriad regional cuisines with them. Szechuan and Hunan, the first to attain popularity, were soon being imitated by Chinese cooks all over the country. Americans can now savor Fujian, Hakka, Zhejiang, Hangzhou, Chaozhou and Shandong.

Today about 350,000 Chinese inhabit metropolitan New York. Some one-fifth of them live in or around Chinatown, which 30 years ago covered only six or seven blocks but now spills north into Little Italy and the East Side. Its markets overflow with vegetables and fruits that range from bamboo shoots and pea pods to durians and lychees. Stores stock bird nests and fermented eggs. Fishmongers preside over piles of fresh crabs, oysters, conchs, snails, baby octopuses and squid, eels, bonitos and groupers. They also sell pickled jellyfish, dried shark fins and sea cucumbers, gelatinous marine creatures prized as an aphrodisiac.

After a lifetime of frequenting Chinese restaurants, I recently got an inside look at how one actually functions, courtesy of the Wu family, the proprietors of the Mandarin Palace in Washington, D.C., where I often go.

The family patriarch, Yu-Ting, is an imposing figure in his early 70s who looks like a Chinese chef out of central casting. A native of Shandong Province, the cradle of northern Chinese food, he trained as a teenage apprentice in a Beijing restaurant before going on to work in Shanghai and Hong Kong. In 1967, when Mao's Cultural Revolution convulsed Hong Kong, he took his family, pots, pans and dishes to Abidjan, in Côte d'Ivoire, where he started a restaurant. After four lonely years they moved here, opened the North China restaurant in Bethesda, Maryland, and later the Mandarin Palace. Nowadays, Yu-Ting consigns the cooking to his sons, George, Robert and John, and son-in-law Paul Chow. Daughter Anna and two daughters-in-law rotate at the cash register.

One morning I drove with Paul to a wholesale market in Northeast Washington to do part of one day's shopping. First we pulled the van up to a gigantic warehouse whose Korean owner carries tropical fruit as well as vegetables, herbs and spices. Paul picked up three or four crates of vegetables, including Shanghai bok choy from Florida, and I bought a crate of persimmons for myself. We went on to a Chinese shop that stocks bottled sauces, oils and pastes imported from China, and then to a Chinese bean curd maker. Paul finished off by picking up a couple of dozen fresh chickens.

Robert, the Mandarin's chef, a large, amiable man of 39, mastered his craft in the traditional manner–years of cleaning, chopping and observing his father while the family tested his dishes at home. He spends his time in a cramped kitchen, from 10 in the morning until 10 at night, seven days a week. He makes appetizers like egg rolls and dumplings in advance, to be heated at the last moment. The first chore every day is to prepare the popular daily soups–hot and sour, egg drop, wonton, chicken with bean threads, crabmeat with asparagus. Sauces come next; the ginger sauce, for instance, in which crispy duck must marinate overnight. Meanwhile, assistants deftly scale fish, peel shrimp and mince vegetables as the other cooks mix up vats of crispy beef and such fare, some destined to be frozen.

At lunch the rhythm quickens. Flames flare up as Robert shifts from one to another of a half-dozen woks, stir-frying their contents and ladling them onto plates. Steamed and poached dishes sit in bowls within reach,

Chinese restaurants keep eggrolling along

and waiters stride through the swinging doors, shouting orders. It is not until midafternoon that Robert gets to sit down and read a Chinese newspaper for an hour until dinnertime approaches.

One morning I watched as he whipped up a chicken dish. Wielding a cleaver as dexterously as if it were a penknife, he carved out the breasts, saving the rest for soup. He dipped them in a thin egg batter, sprinkled on some coriander and other herbs, tossed the lot into a wok, stirred for a couple of minutes–*et voila!* It all seemed effortless, confirming my impression that a duffer may be able to fix a bowl of noodles, but a serious Chinese cook is bred–if not born. Later, as we chatted over tea, Robert made it plain that he is not one of those pretentious chefs who seek for some deeper meaning in Chinese food. He cooks the way his father taught him, but he also intuitively understands the alchemy of Chinese cuisine. Combine and alternate tastes, fragrances, colors and textures. And above all, keep it simple.

Unlike French restaurateurs, who feel bound to serve each guest the same caliber food, Chinese chefs bow to status. The number-one cook attends to distinguished clients, consigning lesser patrons to subalterns. Nor are Chinese and non-Chinese treated equally. As Elaine Louie wrote in the *New York Times* after surveying Chinese restaurants in Manhattan, "gastronomic disparity" is common. Chinese and non-Chinese can sit at adjacent tables, but they eat drastically different fare. The dual system, as Chinese restaurateurs view it, is eminently realistic. As businessmen they are reluctant to offend the average American client, but they take pride in pleasing their Chinese customers, sophisticated appreciators of an art that goes back over the centuries.

Many Chinese dote on recondite delicacies like fish maw, pig stomach, duck feet and snake, the more poisonous the better, which is said to replenish the blood supply. Dodging statutes that protect game, some privately indulge in alligator, armadillo and particularly bear–whose gallbladder, purportedly a cure for circulatory problems, fetches as much as $45,000. The bear's right palm is supposed to be especially tender from pawing for salt. Though China and Taiwan recently banned the trade in tiger bones and rhinoceros horns, also reputed to have curative and aphrodisiac powers, enforcing the law will be difficult.

Alarm gongs sounded recently when a study found 15 popular Chinese dishes to be high in sodium, fat and cholesterol. Some people switched restaurants, but I think that TV's David Letterman dismissed the issue nicely when he cracked that his last fortune cookie warned that there would be a triple bypass in his future. In truth, there is enough variety in Chinese cuisine to tempt the most imaginative palate–and to ease nearly everyone's health concerns.

If I were to plan a moveable Chinese feast, it might start in San Francisco at the Fountain Court, whose Shanghai specialties include eels in sizzling oil with steamed bread–not a dish for the squeamish. Or the Harbor Village, where young women in uniform wheel around trolleys filled with spring rolls, shrimp dumplings, fried taro, steamed spareribs, steamed beef balls and pork buns, as they chant their names in singsong Cantonese–"*chun kuen, siu mai, woo kok, pai kwat, ngau yuk mai, cha siu bau.*"

And so down to Monterey Park, California, where the Ocean Star serves one of the great Cantonese dishes–whole steamed fish with ginger and scallions. Enthusiasts are partial to sea bass; though Chinese etiquette requires a host to offer the choicest morsel, the cheeks, to the guest of honor.

On the East Coast, at the Ocean Wealth in Boston's Chinatown, the pièce de résistance is scallops steamed in the shell, their coral intact, with ginger and garlic in a black bean sauce. At Tang's Pavilion in midtown Manhattan, owner and chef Tang Kin-Ming, a native of Souzhou, cooks *dong so* pork, a stew steeped in vegetables, named for an 11th-century Sung poet. And of course, to round out such a feast I would certainly return to the Mandarin Palace for Robert's Beijing duck and crispy Szechuan beef.

The list is nearly endless. Strangers can hardly go wrong recalling a plea for trust inscribed on the menu of the Oriental, a New York Chinatown restaurant founded circa 1916. "Our Chinese chef," it reads, "is the originator of many delectable dishes, with queer-sounding names, but good to look at and even better to eat."

Among Mandarin Palace's finest: Peking duck, cabbage and spicy pickles, crispy fish, and shrimp imperial.

By Eugene L. Meyer

The soldier left a portrait and her eyewitness account

Civil War buff Lauren Cook Burgess knew she had a case, but even she was surprised by Rosetta Wakeman's letters in the attic

The nerve of Lauren Cook Burgess. During a weekend reenactment at Antietam National Battlefield, she dared to dress as a man–in a Civil War soldier's suit–and got "caught" coming out of the ladies room.

Absurd, sputtered National Park Service officials, and they banned her from playing the part of a soldier. But wait. Lauren Cook Burgess may have been on to something. This was, after all, more than historical reenactment cross-dressing. Women did fight in the Civil War, not only *with* men but *as* men.

Outraged at what she regarded as blatant sex discrimination, Burgess made a federal case out of it. Her lawsuit, filed in 1989, languished in the U.S. District Court in Washington, D.C., but Burgess had other avenues to pursue. For this was not just a legal battle. This was also a battle for history, and Burgess began to amass much historical evidence of disguised women at war.

Lauren Cook Burgess wasn't interested in historical revisionism, which implies an ideological reworking with distinctly political overtones. She just wanted to set the record straight.

The record has been growing, as Burgess and others have unearthed evidence of women dressed as men engaged in combat in the Civil War. The risk to these women in disguise was substantial. To be discovered was to be discharged. Mary Scaberry, a.k.a. Charles Freeman, for one, was expelled from an Ohio regiment when her sex was revealed after she was hospitalized for fever. The official reason for her discharge: "Sextual incompatibility." Women nonetheless served, their sex undetected. Jennie Hodgers, an Irish immigrant, enlisted in an Illinois regiment as Albert D.J. Cashier (p. 102) and went on to receive a pension; finally, in 1911–before she was to move into an old soldiers home–her sex was discovered. Sarah Emma Edmonds enlisted in Company F of the Second Michigan Infantry as Franklin Thompson and went on to write a well-known wartime memoir, *Nurse and Spy* (p. 101). Strikingly, she did not divulge her deception or the identity of her unit. That would come only years later, after she had fallen on hard times and wanted to obtain an Army pension, which she did.

Some women enlisted to follow boyfriends, husbands or brothers. Others were adventurous or simply patriotic. They disguised themselves by binding their breasts and wearing short hair. Physical examinations were cursory at best, and recruits were seldom made to undress. And beardlessness was no disqualifier, when so many young soldiers were barely past the age of puberty.

Little wonder then that at Antietam, where Burgess was summarily drummed from the corps of Civil War reenactors, four women are now known to have fought on September 17, 1862, that bloodiest single day in all of American history. Clara Barton told of nursing a soldier at Antietam who was at first reluctant to be treated. "His" name was Mary Galloway. Edmonds, too, wrote of encountering at Antietam a severely wounded soldier who was a female in disguise. "Something in the tone and voice made me look closely at the face," she wrote. Edmonds said the dying soldier confided her sex and asked Edmonds to bury her and keep her secret.

In what could be called the Second Battle of Antietam, a newspaper account of Lauren Cook Burgess' lawsuit reached Ruth Goodier of Chipley, Florida. Goodier held in her hands a closely kept family secret, the knowledge that–as she wrote to Burgess–"my great-grandmother's sister, Sarah Rosetta Wakeman, was a soldier in the Civil War." She also told Burgess something else–a bombshell of sorts: that in a trunk in a family attic, 30 letters had been found that Wakeman had written home while a soldier (p. 99).

Since few women were found out, the historical record of their service is scanty, consisting mainly of occasional newspaper clippings, buttressed in some cases by military and pension records stored at the National Archives in Washington.

Sarah Emma Edmonds, for example, left behind her memoirs and documents from her campaign for Congressional approval of her pension. "Al" Cashier left a bulging pension file containing testimony from former comrades, who were less interested in her gender than

As Pvt. Lyons Wakeman, Rosetta sent a daguerreotype of herself in uniform to family in upstate New York.

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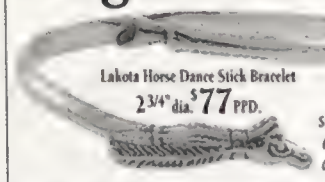

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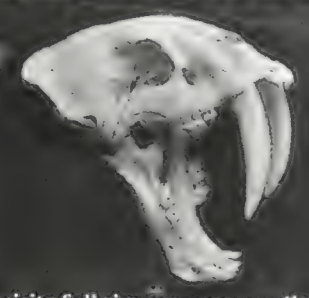

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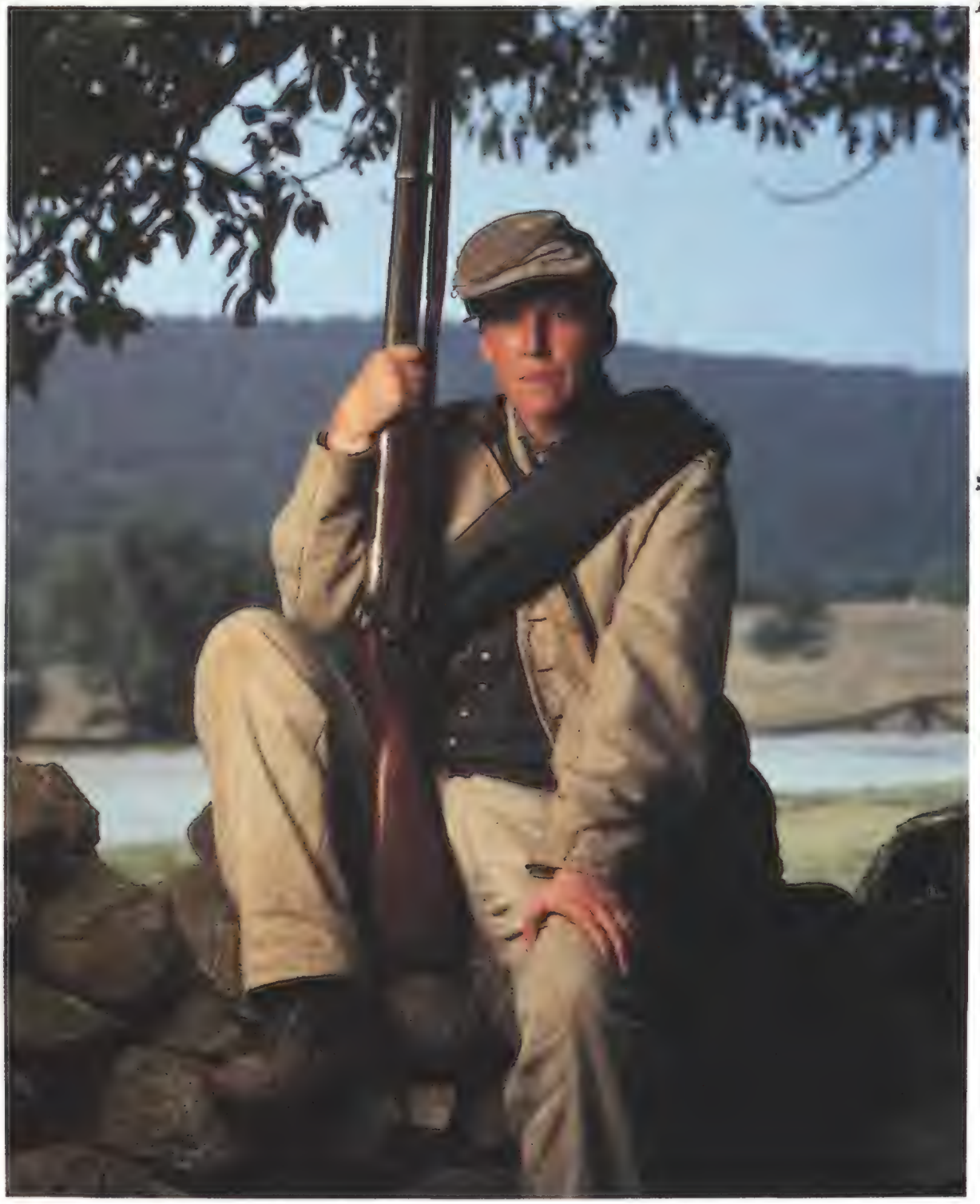


At a Confederate encampment in Virginia, Lauren Burgess is a convincing soldier; handsewn Richmond Depot Type II uniform and Enfield rifled musket are reproductions.

in her character and ability. One later called her a "brave little soldier" who on one occasion climbed on top of fallen trees and called to Confederates in hiding, "Hey! You darn Rebels, why don't you get up where we can see you?" He also remembered her climbing a tall tree to fly the Union flag after it had been shot down.

Yet, letters written home have a truth and immediacy that sets them apart from other historical documents, and there may be no more unvarnished and eloquent record of how American women went to war in the 1860s than the letters of Sarah Rosetta Wakeman. In them, she expresses the entire range of human emotions that comprise wartime life in the military: boredom, homesickness, anticipation, bravado and fear.

"There are numerous collections of letters from Civil War soldiers, but this is the first batch I know of written by a woman disguised as a man," says DeAnne Blanton, of the National Archives. The remarkable thing is that gender seems almost incidental to the content. Wakeman raises the matter only obliquely, perhaps because it was

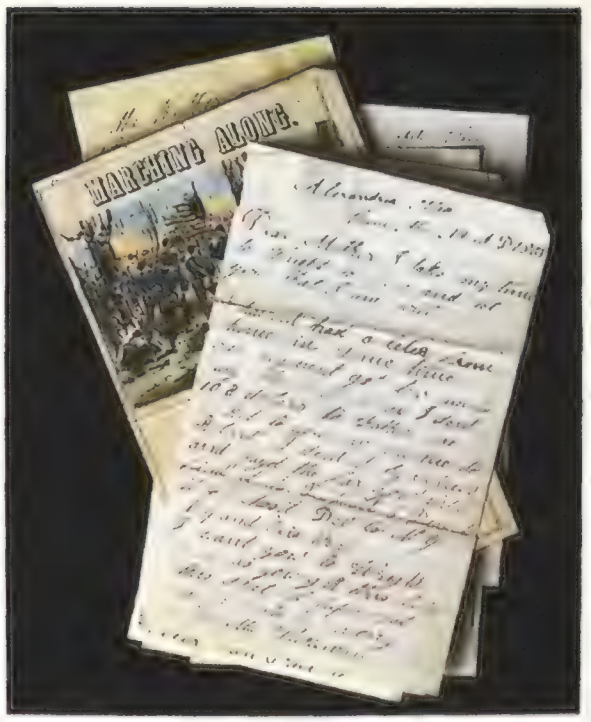
a source of pain to her family. The extent to which hiding her sex may have inconvenienced her remains in the realm of speculation.

What is factual, as documented in the military and pension records still on file in Washington, is a soldier's career: enlisted August 30, 1862, in Fonda, Montgomery County, New York, under the name of Lyons Wakeman; left New York with her regiment October 18; stationed in Alexandria, Virginia, and then in the District of Columbia, assigned to protect the nation's capital; and, finally, what every soldier both dreams of and dreads, marching orders to battle–in her case, a sea voyage to Louisiana and the front, the Red River Campaign.

The letters are written in plain language, for Rosetta Wakeman was a farm girl from upstate New York with a limited education. The oldest of nine children, including seven girls, she was born in 1843 near Binghamton. At the age of 19, she ran away from home, assumed a male disguise and worked as a canal boatman. When, in 1862, enlistment fever swept through New York, Wakeman joined up as a private with the 153d Regiment New York State Volunteers. Not quite 20 at the time, she gave her age as 21. She was five feet tall, and described as having a fair complexion, blue eyes and brown hair. "Lyons" Wakeman listed her occupation as, simply, "boatman."

Wakeman came from a hardscrabble rural existence, and it was partly boredom that caused her to run away. She was, she wrote home on June 5, 1863, "tired of staying in that neighborhood." But once in the Army, she regularly wrote home and sent what money she could to help her father pay off his debts. She dreamed, also, of having enough to buy her own farm back home after the war was over.

Her original term of enlistment was for three years, but she mused that she might reenlist for five more in order to secure an $800 bounty for herself and her family. That was, she frequently added, if she survived the war. "If it is God's will for me to be killed here, it is my will to die," she wrote from Alex-



Rosetta Wakeman's letters sat for years in a trunk; she was a "family secret."

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This soldier, identified as Frances Clalin (or Clatin, or Clayton), is among the 127 women in Lauren Burgess' growing file; misspellings and the scarcity of records pose a considerable challenge.

andria, Virginia, in an earlier letter.

As the war progressed, optimism about her fate seemed to change to pessimism, but Wakeman maintained a constant interest in news from home. She wanted to know how much grain had been grown, how many cows had been raised and hogs slaughtered, and every detail about the new barn built over the summer. Occasionally, she regaled her family with accounts of her adventures: "It would make your hair stand out to be where I have been. How would you like to be in the front rank and have the rear rank load and fire their guns over your shoulder? I have been there myself. . .I am getting fat as a hog–the climate agrees with me first rate."

As was the custom, Wakeman had her picture taken in uniform and sent it to her relatives. "How do you like the looks of my likeness?" she wrote. "Do you think I look better than I did when I was to home?" The daguerreotype survives today as tangible evidence of her service, along with a ring she had inscribed with her real name and the name of her unit.

She signed her letters, variously, Sarah Rosetta Wakeman, Rosetta Wakeman, R. L. Wakeman or Edwin R. Wakeman. To keep her cover as a man, she instructed her family on how to address their letters to her. Like all young soldiers, she sometimes got homesick, and she asked her parents for care packages containing "a piece of dried beef" or a "box of apples and a bottle of cider" and "a pair of knit gloves." She asked, too, for stamps to be sent, and she expressed gratitude whenever they arrived. Stationery was easier to come by. Imprinted on one piece were the words of a patriotic war song, "Marching Along," which begins:

"Our country has called her brave sons to the field,

To false-hearted traitor she never must yield;

Then, forward, true soldiers! let this be our song–

Eugene Meyer, a staff writer at the Washington Post, *is the author of* Chesapeake Country *(Abbeville Press).*

'To conquer or die we are marching along!'"

The irony is obvious today, but whether it so struck "Rosetta" as she signed the letter remains a matter of conjecture.

The stationery also bore an illustration of soldiers in battle. The heroic scene was sure to stir the home folks, but until the last five months of her service, it was far from Wakeman's reality. Hers was, largely, a mundane existence of drilling and guard duty in and around Washington, D.C. She could, she wrote, "drill just as well as any man." From her own reports, she occasionally caroused with her fellow soldiers and once even got into a fistfight with one Stephen Wiley, who "pitched on me and I gave him three or four good cracks and he put downstairs with himself."

Private Wakeman and her unit were more than ready to meet the Rebels on the field of battle, she assured the home folks. "I am in hopes that they will come," she wrote, "for if they do they will get licked." Earlier she had written, "I don't fear the rebel bullets nor I don't fear the cannon."

In the time-honored military tradition of hurry up and wait, Wakeman's unit was constantly being told of imminent marching orders, followed by endless delays. On April 13, 1863, she wrote excitedly from Alexandria, "We have got marching orders. We expect to march tomorrow at one o'clock. We have got three days rations cooked all ready for us. I don't know where we shall go." On June 5, she was still writing from Alexandria.

As the Battle of Gettysburg raged, she had noted, "The Rebs is amaking such work in Maryland and Pennsylvania that I don't know how long before we shall be called for a reinforcement." That same summer, she reported, "They have drafted black men as well as white men." And she raged against the New York draft rioters. "I would like to see some of them Copperheads come down here and get killed," she wrote.

Finally, on July 20, the orders came. Her regiment would be moving across the Potomac River to Washington, D.C. "We had rather go to the front," she wrote dourly from her new quarters a week later.

There were, however, some advantages to her new assignment. Instead of tents, the 153d New York resided in two-story wooden barracks within sight of the Capitol. There, she did guard duty at the Carroll Prison, which

Under the name Franklin Thompson, Sarah Emma Edmonds served for two years in Company F of the Second Michigan Infantry. She later wrote a memoir, *Nurse and Spy.*

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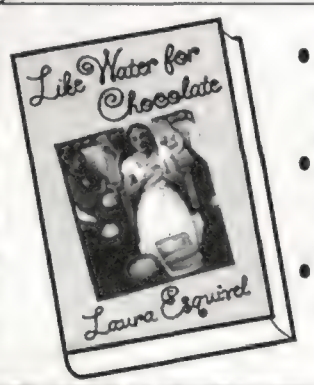

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housed Confederate spies and sympathizers. Three prisoners at Carroll were worth writing home about. "They have got three women that are confined in their rooms," she reported. "One of them was a Major in the union army and she went into battle with her men. When the Rebels' bullets were a-coming like a hail storm she rode her horse and gave orders to the men. Now she is in prison for not doing according to the regulations of war.

"The other two are Rebel spies and they have caught them and put them in prison. They are smart looking women and have good education." Off-duty, she played tourist, visiting the Capitol itself. "I have been inside of it," she wrote in awe. "I have been in the Congress hall. That is a pretty place you better believe."

From the besieged capital, she followed the war beyond, mainly in terms of how it might affect her. "What do you think of this war?" she wrote home. "I think I shall have to stay my three years in the Army." And she added this melodramatic postscript: "I don't know how long before I shall have to go into the field of battle. For my part I don't care. I don't feel afraid to go. I don't believe there are any Rebel bullets made for me yet. . . . If it is God's will for me to fall in the field of battle, it is my will to go and never return home."

Finally, the marching orders came. In February 1864 Wakeman and her regiment embarked by steamship from Alexandria to Algiers, across the Mississippi from New Orleans. With her characteristic matter-of-factness, she wrote that she hoped to go "so far South that we shan't freeze to death this winter." They were nine days at sea, arriving at Algiers on February 29.

"I don't ever expect to see one of you again in this world," she wrote fatalistically upon her arrival. Wakeman and the New York Volunteers were to become part of the ill-fated Red River expedition. Designed to establish a Union presence in Shreveport and discourage French designs on Texas, the land-and-water campaign in March

"Albert Cashier" made the headlines in 1913: a woman in an old soldiers home!

1864 involved some 27,000 Union soldiers. In the humid Southern climate, Wakeman's unit of Northerners was led on forced marches of great distances–200 miles in ten days. At a hellish place named Pleasant Hill, they fought off a Confederate attack that had begun the day before. "There was heavy cannonading all day and a sharp firing of infantry. . . . I was not in the first day's fight," Wakeman wrote home. "But the next day I had to face the enemy bullets with my regiment. I was under fire about four hours and lay on the field of battle all night. There were three wounded in my company and one killed."

And then, the 153d was marched back to the Mississippi, the end of a monumentally flawed campaign. The march took its toll on the regiment. Rosetta Wakeman was to become a statistic–but not as she had expected; it was not a Rebel bullet that would mortally wound her, but rather chronic diarrhea. She wound up in a New Orleans military hospital; after languishing for almost a month, she succumbed on June 19, 1864, less than two years after her enlistment. Her death was typical of a war in which sickness

proved more deadly to Union forces than bullets: of 360,000 deaths, 200,000 were from disease.

Had she survived, Wakeman would most likely have gone with her unit back to Washington, just in time to save the capital from a Confederate attack a month later, in July 1864. And then, in May 1865, she would have marched proudly down Pennsylvania Avenue in the victorious Grand Review of Union Armies.

But it was not to be. Rosetta Wakeman was buried in grave No. 711, Monument Cemetery (later, Chalmette National Cemetery) in New Orleans. The tombstone inscription says only "Lyons Wakeman" and "N.Y.," giving no hint of the secret that seemed to die with her.

But Rosetta Wakeman's letters survived the war, hidden away in an attic chest in a family home in Binghamton, New York, along with the daguerreotype of her, standing ramrod straight in her uniform with musket and bayonet affixed. Wakeman's great-nephew Jackson K. Doane had heard rumors of a relative who fought in the war, he says today, "but it was kind of hushed up." He first found the letters "in a neat little package" in 1940, when he was 18, but he quietly left them there. "I'd heard the name of Rosetta mentioned and it was as sort of the black sheep of the family. Whenever I asked about her, my grandmother would kind of change the subject."

His grandmother told him simply that her Civil War sibling had gone by the name of Lyons. Then in 1976, her daughter, Neva Smith Morse, and Doane rediscovered the letters in the attic. It was then that Doane tied "Rosetta" to "Lyons."

When Lauren Cook Burgess learned about Wakeman from Ruth Goodier, Doane's cousin, she was astonished. It was a find that Burgess never expected–and she was familiar with the terrain. She had started collecting information about women at war when she brought the lawsuit. "It's become a real obsession," confesses Burgess, seven of whose own Indiana ancestors–males only, as far as she knows–fought for the Union cause. By the time she learned about Wakeman's letters, she had amassed dossiers on 75 women who fought as men in the Civil War, almost all of them on the side of the Union. But the Wakeman letters are so extraordinary that she has edited and annotated the entire collection for publication in a book entitled *An Uncommon Soldier.* It is scheduled for publication later this year by the Minerva Center in Pasadena, Maryland, which is dedicated to the study of women in the military.

Although Burgess' archive continues to grow–it now documents 127 women–the precise number of women soldiers who fought in the Civil War may never be known. Mary A. Livermore of the U.S. Sanitary Commission (a forerunner of the American Red Cross) wrote in her 1889 account *My Story of the War* that "the number of women soldiers known to the service" was thought to be a "little less than 400." But she was convinced that the actual number of women who "disguised themselves and enlisted" was larger. Whatever their numbers, female soldiers were viewed in their own time as mis-

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fits–whether foolish, brave or perverse.

From the distance of years, however, the assessment of these fiercely independent women is different. "They were not just ahead of their time," said National Archives staff member DeAnne Blanton last year. "They were ahead of our time." Blanton spoke these words to a weekend gathering at Antietam Battlefield, where reenactments have grown enormously popular in recent years. Casual buffs have become serious weekend reenactors, "disguising" themselves in uniforms as authentic as possible–even though the not infrequent middle-age beer bellies don't quite square with the reality of beardless, callow youths at war.

Lauren Cook Burgess and her husband, Fred, are among those Civil War enthusiasts. Married in Civil War-era garb in 1990, they cut their wedding cake with a 130-year-old officer's sword. Lauren Burgess naturally joined the ranks of the reenactors–often driving for 300 miles to join other enthusiasts for a weekend encampment. Most of the women at these gatherings portrayed female nurses, camp followers or mourning widows in black. Not Burgess. Like Wakeman, Cashier and countless others who hid their gender to enlist, she disguised herself as a man, occasionally using charcoal to give her face a 5 o'clock shadow. In person, she looked a lot like the dashing, uniformed young boys in the old daguerreotypes.

Last year Lauren Cook Burgess won her court case. Women, a federal judge ruled, could indeed play the role of soldiers in Civil War reenactments. But for Wakeman, Cashier and others, war was no game of make believe. It was the real thing. "If I go into battle, I shall be all right," wrote Wakeman hopefully, in a letter dated April 13, 1863. "It is what I have wished for a good while." So wrote a soldier to the folks back home.

Lauren Cook Burgess–in real life, a university administrator in North Carolina–won a lawsuit that will allow her to dress as a soldier in Civil War reenactments.

Book reviews

Wind, Sand & Silence: Travels With Africa's Last Nomads
Victor Englebert
Chronicle Books, $35

In 1957, a 24-year-old Belgian headed south from Brussels on a Vespa motor scooter and rode until he reached the Cape of Good Hope. In the height of summer he crossed the Sahara, where relentless sandstorms obliterated his trail and nearly did the same to him. Yet, when the trip was over, memories of the great desert and its nomadic peoples captivated him like no others.

"I had been a nomad myself on that scooter trip," writes Victor Englebert. The kinship he had felt with the Tuareg herdsmen he encountered in Algeria and Niger beckoned his return. Six years later he revisited them with a camera, launching a 30-year career as a photographer of indigenous peoples. He has portrayed more than 30 tribes on three continents, but none as often or as passionately as the nomadic peoples of Africa. "I have been attracted most by the nomads–by their noble and aloof bearing, their generous hospitality, their marvelous freedom of movement, the vastness and luminosity of their world."

In numerous expeditions, Englebert trekked among the nomads on foot and camelback, always striving to integrate himself as much as possible into their culture. As required for modesty or protection, he donned the traditional *tagilmust*, a 20-foot band of cotton cloth that drapes the wearer from forehead to feet. He quickly learned to accept and return the hospitality symbolized by ritual glasses of heavily sweetened tea. To photograph a salt caravan, he lived the life of a caravaneer–helping load 175-pound packs of salt onto camels and leading them across 300 miles of merciless desert, his feet cracked and bleeding, chafed arms aching, clothing shredded by the rough salt blocks. A willingness to try anything (including food and drink contaminated to stomach-curdling proportions), a remarkable facility with languages, and an enviable ability to build trust across vast cultural divides enabled Englebert to undertake and record his improbable journeys.

Wind, Sand & Silence is Englebert's celebration in photography and prose of the nomadic Africans who captured his imagination and his friendship. Geographically from west to east, it describes five of his journeys spanning 26 years: two with the Tuareg, and one each with the Bororo of Niger, the Danakil of Ethiopia and Djibouti, and the Turkana of Kenya. The volume can serve as a visual record alone, its dramatic color images remarkable for their intimacy and clarity. But the text is an equal partner.

Presented journalistically with brief excursions into the writings of historical predecessors, the book is a very personal chronicle of adventure, an ethnographic overview, and a heartbreaking tribute to a way of life that is fast disappearing. Because he visited some tribes repeatedly over nearly three decades, Englebert is in a rare position for a journalist: he can document the changes that have befallen Africa's nomads and their desert environment.

The five treks that form the skeleton of *Wind, Sand & Silence* are fleshed out by the people who inhabit its pages. Englebert has unlocked their hearts and their histories, and he shares them in a way that gives us a privileged sense of communion with the nomads as individuals. "She is a pretty little rogue, perhaps twelve years old," he writes of a Danakil girl. Known for ferocity, the Danakil are Hamitic people who occupy the Danakil Depression in northeastern Ethiopia, a low-lying moonscape of phantasmagorical rock outcroppings, and treacherous craters filled with melted chloride. "Her eyes, suspicious and cunning, are devoid of innocence–no innocent creature survives in her hostile world. She emerges from a doorway and sits down to watch. Soon my eyes meet hers; we are both intrigued. After many minutes she beckons me to approach." Englebert's evident joy in winning and sustaining friendships among his tribal companions persists–even after a terrifying encount-

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To prove his valor, a young Danakil warrior must present his prospective bride with a trophy: a pair of testicles taken from another man, dead or alive. Unarmed and encumbered by camera equipment, the light-haired foreigner makes an attractive target as he walks through the cool of the night under a crescent moon. He is accompanied by Mahmud, a 53-year-old interpreter, and two younger guides who have been instructed by the local chieftain to protect the photographer. The impatient guides have pulled well ahead when four heavily armed Danakil warriors suddenly emerge from the darkness.

"I am worried, and it is too dark to study their ornaments for any clue of a murderous past," Englebert writes. The guides press on, oblivious, as the warriors accost Mahmud. "I sense trouble, but keep walking as casually as I can, lengthening my steps as imperceptibly as possible." Mahmud's voice trembles as he summarizes their hostile words in broken English: "Make trouble, make trouble." Ironically, it is the photographer who instructs the interpreter to stay calm. Finally, Mahmud manages to alert one of the guides to the desperate situation. Fire in his eyes, harsh words on his tongue, the young man swiftly rejoins his party, and the troublemakers vanish.

His brush with the Danakil dismembering tradition fails to disenchant Englebert, and he explains the trophy-gathering with exceptional dispassion. "Hostile as their environment is, it is only natural that a woman should consider toughness a desirable manly virtue." This is his most graphic, but not his only, illustration of the connection between nomadic customs and the resource-poor land from which the people must coax sustenance. Mastery of their environment holds many lessons for the outside world, lessons that may never be learned if the traditional nomadic ways continue their decline.

The terrible drought of 1973 changed the nomadic way of life forever. Africa's nomads have historically confronted droughts, but this one was different. With some access to modern medicine, nomadic populations were larger than ever before, and the existence of towns and relief camps, along with vehicles to transport people to them, provided an attractive escape valve. The result was a nomadic world turned upside down.

Victor Englebert returned to the Tua-

reg in 1973. Dead camels marked trails to the encampments where he had hoped to find old friends, but many of his acquaintances had abandoned the camps. Of these, he learned, some had found jobs in towns; others had gone mad or committed suicide. *Imaheren*, members of the Tuareg noble caste, had bought Land Rovers and adobe houses in town, while lower-caste families were boarding Arab trucks bound for relief camps or the teeming slums of cities. Englebert heard scant suggestion that anyone intended to return to nomadic life. (Ironically, *imaheren* prospects for long-term success may be worse than those of *imrad*, or lower castes. Under pressure to send their children to school, many nobles fooled the authorities by sending the children of their vassals instead.)

Since that drought, Englebert has found the nomads clinging to a tenuous present, facing a questionable future. "They must fight for survival in a complex, competitive and difficult world that they do not fully comprehend," he writes. The tall and elegant Bororo, for example, whose colorfully dressed *yaake* dancers exaggerate the whiteness of their eyes and teeth by blackening their eyelashes and lips, now appear in advertisements for tours featuring "Bororo Dancing Festivals." It's not difficult to see why: Englebert's photographs of pre-tourist Bororo are among the book's most striking images. But one cannot be sanguine about the effects of tourism on people who fear evil spirits and protect themselves by elusiveness, hiding feelings, thoughts, knowledge–even children's names–from the outside world.

Crossing the Sahara by air after one of his visits, Englebert looked down on the camel caravans, "so tiny in the frighteningly bleak immensity that they could have been armies of ants crawling over the frozen waves of a mineral sea." His fellow passengers were oblivious to the world of nomads directly beneath them. "Was it possible that. . .they belonged to a parallel world of which no one else was aware, one which shared our space but not our time? Such a strange sight they were, so late in our century, that my doubts could have assailed anyone."

Whether or not Africa's nomads endure, there is some small solace in knowing that they have been so masterfully immortalized in this stunning book.

David M. Schwartz is the author of *Yanomami: People of the Amazon*, a children's book due out next fall.

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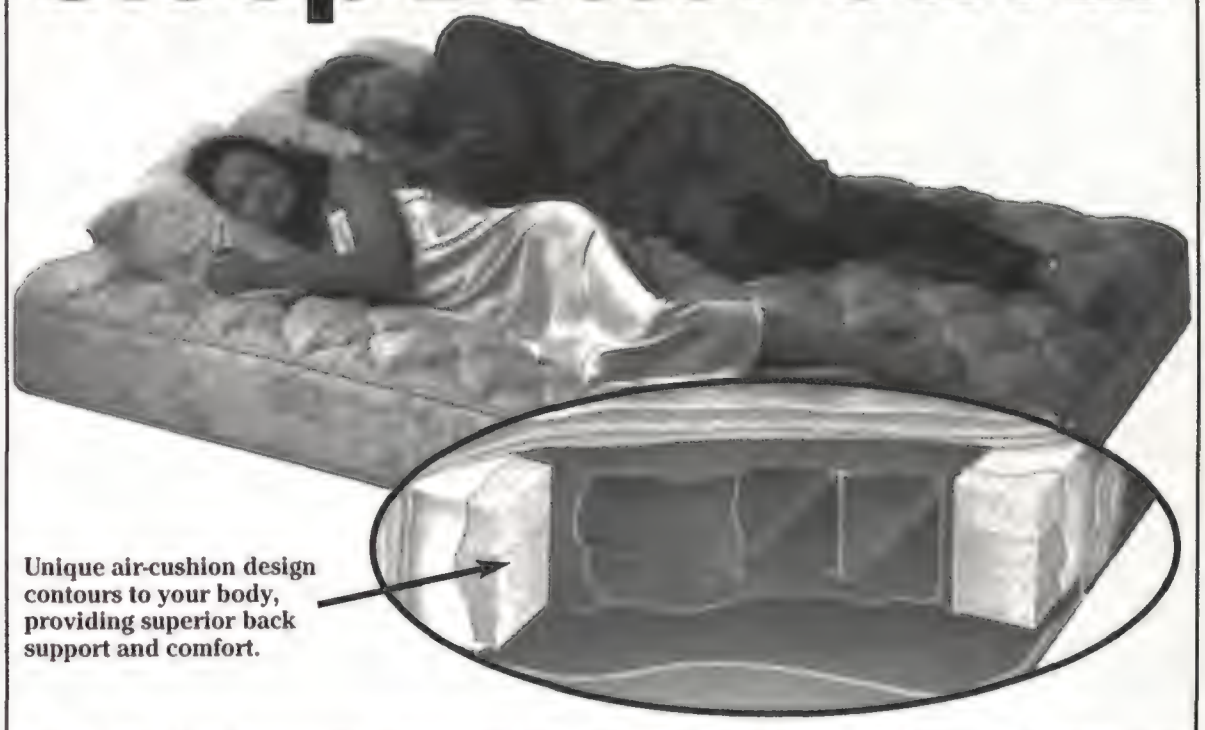

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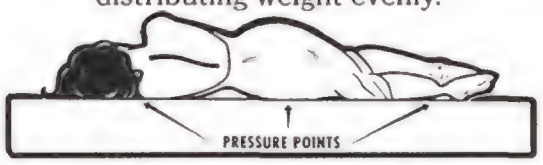

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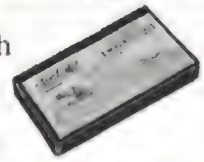

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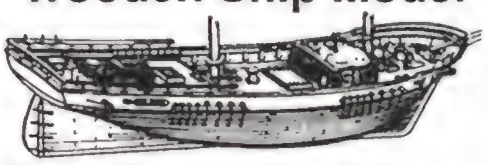

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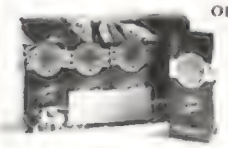

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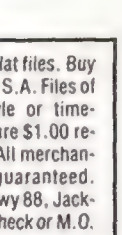

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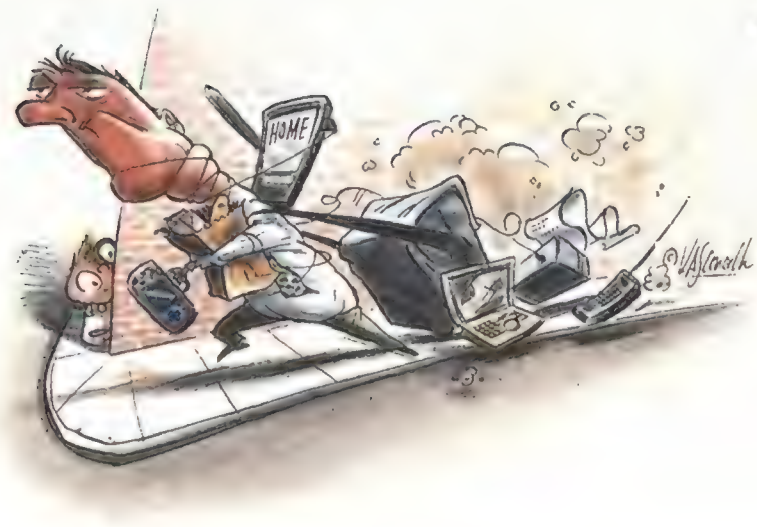
By James R. Chiles

Now that everything's portable, getting around can really be a drag



No doubt you've heard of "cocooning," which is a label concocted by trend watchers who say that we're spending more and more of our free time at home each year. Supposedly it's because our increasingly well equipped houses represent the only haven in a turbulent world. Maybe, but there's more to it. I think we're cocooning because there are so many portable electronic gadgets to carry along, it's getting too darn difficult to get out the door.

If I'm to believe the airline flight catalogs, when I book a business-class ticket to Stockholm I'd better plan to pack the following: portable computer with fax and printer, electronic surf-noise machine and air-filtration unit for the hotel room, videocamera and electronic translator with a Swedish plug-in card. If I plan to jog through the park early in the morning, I'd be a fool to leave behind my personal stereo, headphones, pocket siren and electronic dog repeller. I may also need a cellular phone, a Gameboy and a hand-held satellite navigation unit.

You can recharge batteries, but has anybody thought of some way to recharge the person who has to lug all this stuff around? A plague of portables is not something that anybody anticipated when the first transistor radio appeared in 1952, but it appears to be reaching pandemic proportions.

Less than 20 years ago I attended all my college and law classes with just a backpack and a notepad. Now some universities are requiring students to buy a personal computer for writing up class notes, term papers and exams.

Smaller versions of such computers travel under the names "laptop" and "notebook," but I prefer "millstone," from the old expression referring to a millstone around your neck. These gizmos weigh between 6 and 15 pounds, not counting the cases with shoulder straps. This may not sound like much, but after you've hauled one, together with the rest of your baggage, halfway down the O'Hare Airport concourse and still have another mile and a half to go, I think you'll agree the name "millstone" is pretty appropriate.

I joined the ranks of the heavy-laden a year ago. I now tote my computer back and forth between work and home, every day. I take it on vacation. Sometimes I even take it camping. At daylong conferences, you can tell those of us who are electronically compulsive from other people. We're power-hungry. We never sit near walls made of tall, folding partitions because those don't have any outlets. We arrive early and mark our territory with extension cords, poised for the moment our batteries begin to fade.

Oh, and there's theft to think about. The solution–surprise!–is another electronic gadget that glues to the computer's case. It's supposed to scream if anyone tries to make off with your millstone without punching in the secret code.

This, no doubt, is an offspring of the autoalarm remote control, a pocket-size transmitter that allows an owner to defuse his car's theft alarm as he walks up to it. Alarm-equipped cars are so edgy today that they go off at the slightest provocation. When I invaded a Pontiac's personal space in a grocery store parking lot recently, a loudspeaker bellowed at me from under the hood. "ATTENTION!" it said. "YOU ARE STANDING TOO CLOSE TO THE VEHICLE! STEP BACK IMMEDIATELY!"

In case you haven't caught the fever yet, the latest portable device you can't live without is the Personal Digital Assistant (PDA). This book-size, battery-powered whiz has a screen that you can write on. The PDA translates handwriting into orderly electronic messages. It also stores sketches and road maps, keeps your schedule, beeps to nag you about appointments and dials the phone for you. These tiny computers can even beam messages back and forth to one another, using infrared light, while you're sitting at a conference table. Supposedly they only exchange vital numbers and business contacts, but I can just imagine the chat they'll really be having:

"So, did your human miss any appointments yesterday?"

"Yes, and how. She slammed me up in her briefcase 1:15:34 hours before an important meeting and forgot all about it. By the time she opened up the case and heard me beeping at her, that account was dead meat."

"Mine didn't miss any, but his dental appointment must have been at the lake because that's where he went after leaving work early. I'm going to turn him in to the personnel manager's PDA during the staff meeting scheduled for 8:30:00 A.M. Monday."

If people must have new portable electronic gadgets to invent and sell, here's one that I'd open my checkbook for. As a writer, I often have dozens of library books around the house at any given time, and my progeny have carried home untold more from the children's department. Trying to locate them all and get them back to three different libraries on time is like herding cats through a Wal-Mart. What I need is a Book Finder (TM). I envision it looking and sounding something like a metal detector. I could turn it on, wave it behind sofas and under beds every few days, and send small children in for the recovery. I could kiss the "library fines" column of my household budget goodbye.

I'd be happy to talk to venture capitalists about it, but don't ask me to pack my bags and catch a plane on short notice. My gadgets are still busy charging their batteries.

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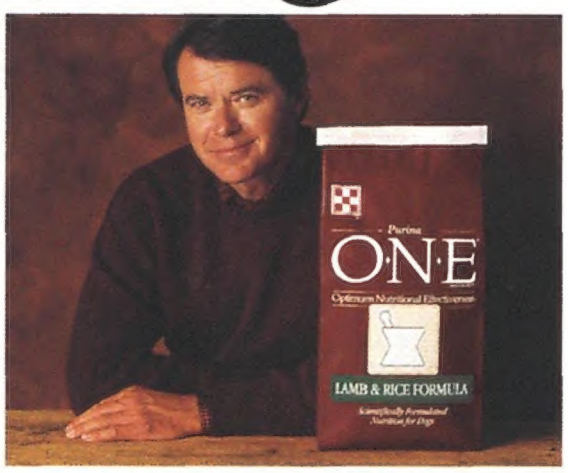

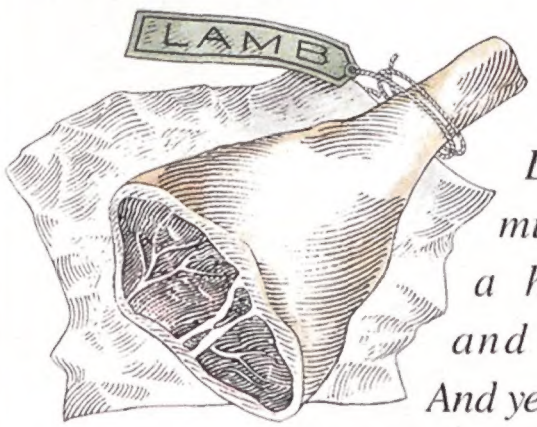

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